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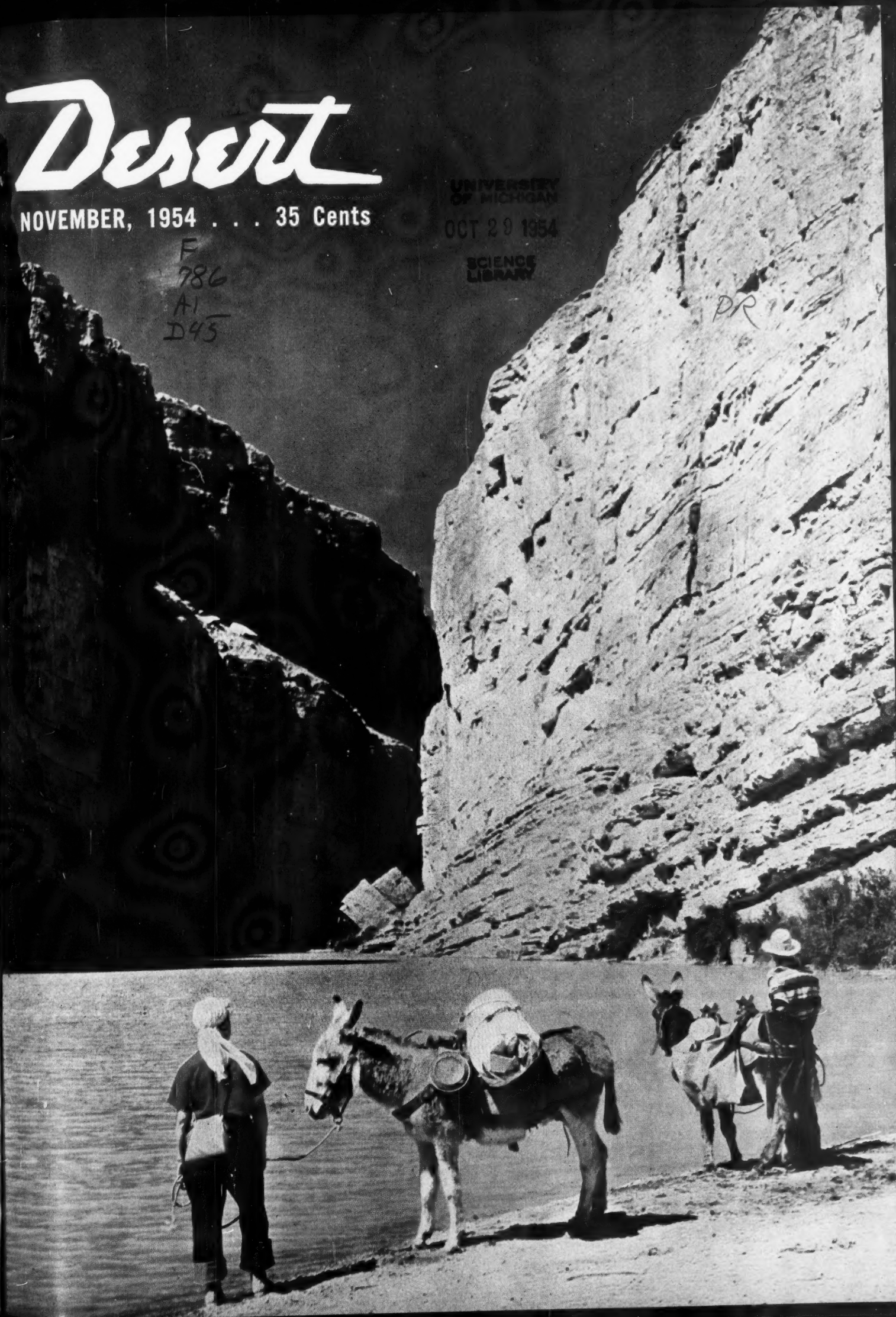
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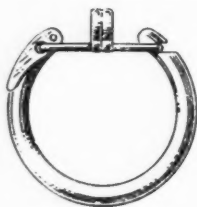
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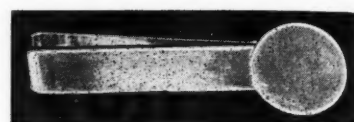
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DESERT CALENDAR

- Nov. 1 — Ceremonial Dances, Taos Indian Pueblo, Procession at Dawn, Santa Fe, New Mexico.
- Nov. 2—All Soul's Day, Memorial Day in Spanish villages, New Mexico.
- Nov. 5-15—Arizona State Fair, State Fair Grounds, Phoenix, Arizona.
- Nov. 6-7—Colorado River Roundup, Parker, Arizona.
- Nov. 6-7—Sierra Club Camping in Devil's Punch Bowl and Big Rock Creek, California.
- Nov. 6-7—Sierra Club Hike to Black Mountain; camp site at Last Chance Canyon, California.
- Second Week in Nov.—Snow Bowl opens, Flagstaff, Arizona.
- Nov. 11-14 — Annual Death Valley Encampment, Death Valley, California.
- Nov. 12—St. James Day Fiesta and Harvest Corn Dance at Tesque and Jemez Pueblos, Santa Fe, New Mexico.
- Nov. 13-14 — Annual Weed Show, High School, Twentynine Palms, California.
- Nov. 13-14 — Sierra Club Desert Camping and Song-Fest, Cottonwood Springs, California.
- Nov. 13-18—Ogden Livestock Show, Ogden, Utah.
- Nov. 17-19 — Southwestern Medical Assn. Convention, Paso del Norte Hotel, El Paso, Texas.
- Nov. 20-21—Elks' Rodeo, Victorville, California.
- Nov. 20-21—Rodeo, Ajo, Arizona.
- Nov. 20-21 — Sierra Club Knapsack Hike up San Jacinto Escarpment, California.
- Nov. 23—Finish of Fifth Pan American Road Race starting at Guatemalan Border, El Paso, Texas.
- Nov. 25—Desert Sun Rancher's Rodeo, Wickenburg, Arizona.
- Nov. 25-28 — Sierra Club Hike of Telescope, Sentinel, Porter Peaks, Butte Valley, California.
- After First Frost—Navajo Reservation, Navajo "Yei-be-chi" and Fire Dance, New Mexico.
- Late November—Zuni Pueblo, "Shalako" Ceremonies and House Dances, Santa Fe, New Mexico.
- September through December 1 — "Awatovi Murals" exhibition, Museum of Northern Arizona, Flagstaff, Arizona.



Volume 17	NOVEMBER, 1954	Number 11
COVER	Prospecting on the Rio Grande. Photo by Josef Muench, Santa Barbara, California	
CALENDAR	November events on the desert	3
REUNION	Death Valley Days	4
FIELD TRIP	Nature's Tumbled Gems at Pisgah By HAROLD O. WEIGHT	5
LOST MINE	Lost Gold of Indian Gully By RUSS LEADABRAND	10
PERSONALITY	Old Chief Tecopa of the Paiutes	12
POETRY	Desert Sunset, and other verses	13
GEOGRAPHY	Legendary Lake of the Paiutes By JANE ATWATER	14
FICTION	Hard Rock Shorty of Death Valley	18
EXPERIENCE	Life on the Desert By GRACE M. WILTON	19
CONTEST	Announcement of Photo Prizes	20
NATURE	Bird That "Sleeps" all Winter By EDMUND C. JAEGER	21
PHOTOGRAPHY	Pictures-of-the-Month	23
PERSONALITY	He Rode with Buffalo Bill By WILLARD H. PORTER	24
CLOSE-UPS	About those who write for Desert	25
LETTERS	Comment by Desert's readers	26
NEWS	From Here and There on the Desert	27
PUZZLE	True or False Quiz	32
MINING	Current news of desert mines	33
LAPIDARY	Amateur Gem Cutter, by LELANDE QUICK	34
HOBBY	Gems and Minerals	35
COMMENT	Just Between You and Me, by the Editor	42
BOOKS	Reviews of current Southwestern books	43

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RANDALL HENDERSON, Editor
DAVID E. ZANDER, Sales Manager

BESS STACY, Business Manager
EVONNE RIDDELL, Circulation Manager

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Aerial view of Death Valley looking south toward Badwater. Furnace Creek ranch in right foreground, with landing strip to the left. Furnace Creek Inn is at the canyon to the left of the ranch. Photo taken in 1936 by Spence Air Photos.

Death Valley Days . . . November 11-12-13-14

Recalling the days when an intrepid caravan of California-bound gold-seekers faced death on the alkaline flats of Death Valley, the Death Valley '49ers, a non-profit organization, is preparing to entertain many thousands of visitors at the 6th annual Encampment to be held November 11-14 this year.

B. Paul Gruendyke, program chairman, has completed the following program of entertainment and cultural events for this year's Encampment:

THURSDAY, NOVEMBER 11

- 2:00 p.m. Conducted tour of Badwater and vicinity. Start from Government Center. Dr. Thomas Clements, chairman.
- 7:00 p.m. Campfire at the Sand Dunes. Community singing led by Hugo Kirckhofer; Death Valley tales by Ardis Walker. Arthur W. Walker, chairman.

FRIDAY, NOVEMBER 12

- 8:00 a.m. Artists' Breakfast. The West's Noted Artists in Person and featuring some entertainment surprises. Furnace Creek Golf Course. Price \$1.50. John W. Hilton, Chairman
- 11:00 a.m. Conducted Tour of the North end of Death Valley and Scotty's Castle. Dr. Thomas Clements, Chairman
- 1:00 p.m. Death Valley Scotty Memorial Dedication at Scotty's Castle. Randall Henderson, Chairman
- 4:00 p.m. Painting Demonstration at Furnace Creek Inn by John W. Hilton.
- 7:00 p.m. Camp Fire at Texas Spring; Community Sing led by Hugo Kirckhofer; Death Valley Tales by Capt. R. A. Gibson and Judge James B. Nossor. Ardis M. Walker, Chairman
- 9:00 p.m. Square Dancing, Furnace Creek Ranch. Kinnie Powers, Chairman

SATURDAY, NOVEMBER 13

- 8:00 a.m. Photographers' Breakfast, presenting outstanding photographers of the west with their own special entertainment. Presentation of a picture to John Lubken, long time chairman of the Inyo County Board of Supervisors. Furnace Creek Golf Course. Price \$1.50. Floyd B. Evans, Chairman
- 10:30 a.m. Conducted Tour of Central Death Valley. Dr. Thomas Clements, Chairman
- 2:30 p.m. Burro-Flapjack Contest. The desert's most entertaining feature, with oldtime prospectors participating in the most novel race of all time. Location, Stovepipe Wells Hotel. Judge Arthur Manning and Harry Oliver, Co-Chairmen
- 7:00 p.m. Camp Fire at Furnace Creek Ranch; Community Sing led by Hugo Kirckhofer; Concert by the North American

'49ers Chorus, Robert Morris, Director. George W. Savage, Chairman

8:15 p.m. Kodachrome Showing of the finest western color pictures by noted photographers. Location, Furnace Creek Ranch Hangar. Floyd B. Evans, Chairman

9:30 p.m. Square Dancing. Furnace Creek Ranch. Kinnie Powers, Chairman

SUNDAY, NOVEMBER 14

- 7:00 a.m. Catholic Mass, Furnace Creek Inn Gardens. Charles Scholl in Charge
- 7:00 a.m. Protestant Sunrise Church Service at Desolation Canyon. Special music by the North American '49ers Chorus led by Robert Morris, Director. The Reverend Randall C. Phillips will give the Sunrise Message. Paul Palmer in Charge
- 8:30 a.m. Authors' Breakfast at the Furnace Creek Golf Course. Well known western authors in person as guests of honor. See and hear them tell their own stories. Price \$1.50. John D. Henderson, Chairman

There is no charge for any of the events on the program, the expenses of the Encampment being paid by voluntary memberships.

Since accommodations are very limited in Death Valley, a majority of those who attend the annual Encampment take their own bedrolls and camp out. Visitors should carry an ample supply of water, and also firewood if they plan camp cooking. Generally the weather is mild in November and outdoor living on the spacious floor of Death Valley is no hardship.

George W. Savage, president of the '49ers, has extended an invitation to all who would care to participate in this unique 4-day program.

YOU MAY BE A MEMBER

Membership in the Death Valley '49ers is open to all who contribute to the expenses of the annual Encampment. If you want a membership card and a windshield sticker for your car, you may send your dues to Death Valley '49ers, 501 Hall of Records, Los Angeles. The following types of membership are available:

Active membership	\$ 2.00	Patron	10.00
Sustaining	5.00	Sponsor	25.00
		Life membership	100.00

Surplus funds in the treasury are set aside for the building of a Death Valley Museum, and all Life Membership fees go into that fund.



At the western edge of Pisgah Crater, in a sandy bay in the lava flow, wind and sand have established a sort of great tumbling barrel, where colorful bits of jasper and chalcedony and moss agate have been semi-polished into natural baroque gems.

Nature's Tumbled Gems At Pisgah...

By HAROLD O. WEIGHT
Photos by the Author
Map by Norton Allen

Though tumbling gems in a barrel is a recently developed innovation, tumbled gems aren't new. At Pisgah Crater on the Mojave Desert, nature has been tumbling jaspers, chalcedony, sard and carnelian and bits of agate and chalcedony roses for centuries. Pisgah, 13 miles west of Ludlow, California, is surrounded by black rock, presenting a desolate appearance that belies the animal life that teems on it each night.

WHEN LUCILE appeared in the doorway, rock-collecting sack in hand and eyebrows raised inquiringly, I knew she must have been reading my thought-waves. With a soft breeze drifting down off the bajada and powder-puff clouds intensifying the rich blue sky above our desert mountains, I'd been ransacking my brain for any excuse to abandon my desk and get outdoors.

"Come on!" said Lucile. "Let's pick out that necklace today!"

"Sure!" I approved eagerly, and half slipped the cover over the typewriter before the sense of her words penetrated. Then I stopped short, frantically trying to recollect any promise of jewelry and to reassure myself that I hadn't forgotten a birthday or anniversary.

Lucile laughed at my consternation. "The necklace over at Pisgah," she explained. I relaxed then. I remembered that necklace, all right.

It all started at the Rockhound Fair held at *Desert Magazine* Pueblo in February, 1952. There Lucile and I saw our first examples of the nugget or "tumbled" gems which were even then on their way to becoming a national fad. These stones also are called baroque gems, and in the sense meaning "artistically irregular," that word probably is the best description. They have been smoothed and then polished—in natural or irregular shapes—through being tumbled in revolving barrels with abrasives and polishing agents.

Since Lucile always favors gem

stones in their native state—or as near to it as possible—she was enthusiastic about the little gems produced by the new process. I liked them too, but I protested the notion they were something absolutely original in the rockhound field.

"That's really old stuff," I said. "They're copying nature again. I can take you out to Pisgah Crater, on California's Mojave desert, and show you where wind and sand have been turning out 'nugget gems' for any number of centuries."

Lucile selected several of the most highly polished stones. "Like these?" she demanded.

With her interest so definitely aroused, I decided I'd better be as

accurate as possible in my statements. It had been fully a dozen years since I last collected any of the little pebbles at Pisgah, but they had made quite an impression on me at the time.

"They're not quite that shiny," I qualified. "I guess anyone making tumbled gems would think they needed a final polishing session in the barrel. But they are all shaped down and cleaned of matrix, and have a nice waxy polish which shows their patterns and colors. All kinds, too. Regular jaspers, red, green, yellow and brown moss jaspers, chalcedony, sard and carnelian, and bits of agate and chalcedony roses. I think if you really took time to hunt pieces to go together, you could make colorful necklaces or bracelets or pendants, with no additional work except fastening on the caps needed."

"That sounds good enough," said Lucile. "Just think — a necklace of nature's tumbled gems! When do we go?"

Well, there are almost numberless places we have promised ourselves we would visit—"just as soon as we can." The Pisgah expedition might still be hanging fire if Lucile hadn't seen a small jar of the Pisgah pebbles while we were visiting my mother in Needles. Mother had collected them on our first visit to the field, about 1940, and still considered them worthy of a place of honor in her desert gem cabinet. And the pebbles reminded Lucile that I had promised to take her to the spot where they grew.

Pisgah Crater is located beside High-

way 66, less than 50 airline miles northwest and across the Bullion Mountains from our home at Twentynine Palms. But all that beautiful Bullion Mountain country—long one of the most popular rock hunting areas—has been commandeered by the Marine Corps Training Center, more than 800,000 acres in extent and still growing. The area is now completely closed to rock collecting. Pisgah itself escaped the *verboten* area only by a hair and because of its proximity to the highway. In fact, the Marine Base property line actually does cut through the southern edge of the cinder cone.

To reach the crater from Twentynine Palms, it is necessary to make a great loop either to the west or the east. The shortest route, via Sheephole Pass, is about 100 miles. The paving of Sheephole Pass road to Amboy is—in the opinion of a few of us unreconstructed desert rats—one possibly good after-effect of the Marine invasion of our valley. The new paving makes it easier for the Twentynine Palms residents who moved there for peace and quiet to escape to desert areas where such conditions still exist.

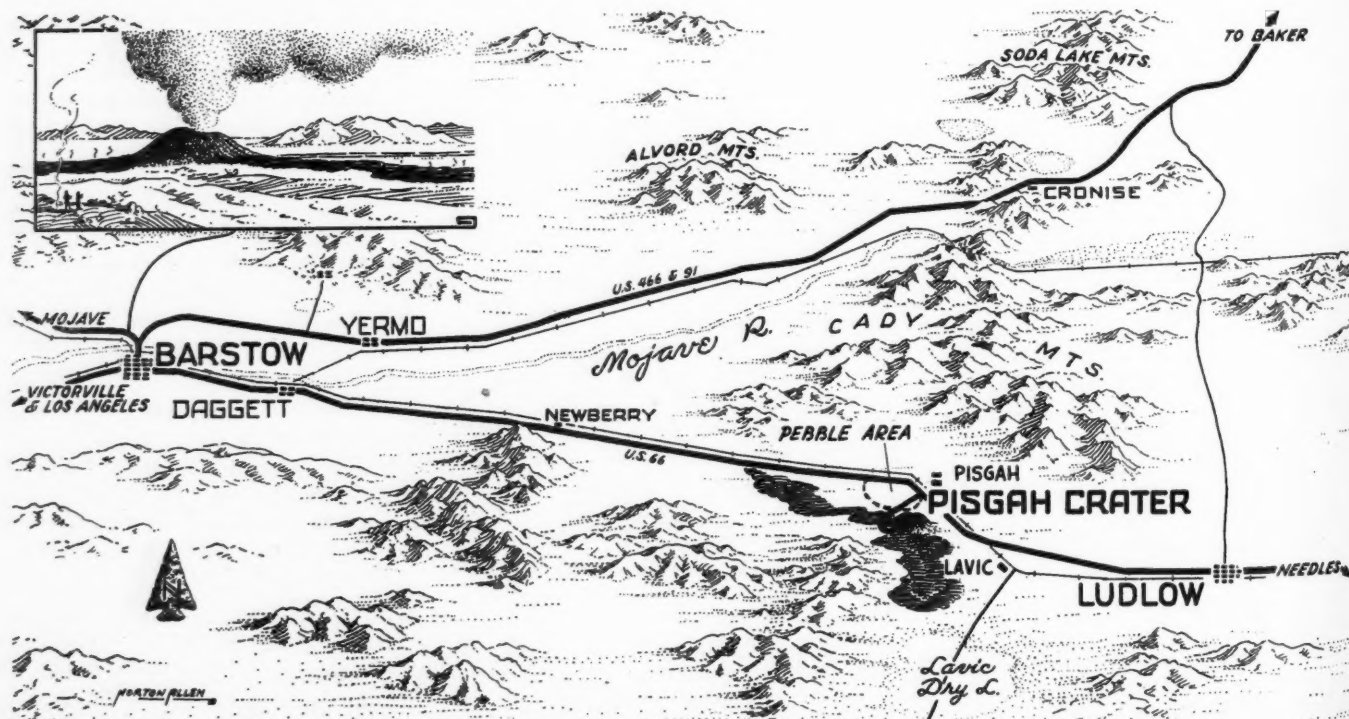
Reaching Amboy, we turned westward on 66. Immediately to the left was the frowning blackness of Amboy cinder cone and flow, and on either side of the highway as we drove toward Ludlow were other complete or partial cones. Contemporaries of Pisgah, they are expressive reminders of the volcanic violence which wracked this part of the Mojave only yesterday in geologic time. The late N. H. Darton, noted American geologist, estimated

that the Amboy basalt may have spewed out within the last thousand years. The fact that the lava flows follow present drainage lines in these areas is evidence of the recentness of vulcanism.

The midnight mass of Pisgah crouches against the desert about 13 miles west of Ludlow. The crater and its lava flow dominate the attention of travelers along the highway for long distances in either direction. It is a cinder cone — klinker-like bits and fragments of lava piled up around the site of a short-lived explosion of extreme violence which occurred when molten rock smashed through the earth's surface. Around its base twist miles of tortured black basalt which throbbed through breaks in the cone's walls. Jerry Laudermilk recreated and dramatized the birth of Pisgah Crater in a remarkable story in *Desert Magazine* (March, 1944). According to Jerry, something terrific and terrible in the way of violence and noise took place on that day. A look at Pisgah's landscape would indicate that he was right.

The "nugget gem" field lies just west of the point where Pisgah's basalt crosses Highway 66. It is largely south of the highway in what amounts to a great sandy bay in the grim lava flow. The sand probably was blown there from Troy dry lake, to the northwest. The semi-polished pebbles found in the bay are an isolated portion of the magnificent placer jasper deposits which can be found in various places for miles on either side of Pisgah.

My first trip into the area, guided



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NEEDLES



AZINE



A tortoise finds his flower delicacies. The tortoise's peculiar combination of accessories—front flippers which must be punched into the sand, elephant-shaped hind feet, and thoroughly non-utilitarian little tail—result in a distinctive track, easily identifiable once it has been recognized.

by Mrs. Bertha Frisby, who then had a tiny rock shop near Yermo, was to collect gem jasper from one of the fields of larger material. We followed the highway past Pisgah to the east, on that expedition, turning off on the side trail which leads to the railroad station of Lavic. The turnoff was, and is, most easily identified by airway beacon 44-18, located right beside the Lavic road. Today, most jasper hunters cross the railroad tracks, but at that time a few yards from the highway one found wonderful pieces of all sorts of gem rock, including brilliantly colored moss and some plume in clear chalcedony.

So little more than an hour's hunting gave us a good quantity and variety of cutting material. Then Mrs. Frisby told us about the field where the greater portion of the rocks, while of the same kinds as those around us, were miniature in size and had been polished by the sand. She always en-

joyed seeing what she could find there, she said, and she was certain my mother, in particular, would have a delightful time collecting there. So we drove on back down the highway and found a twisting, rutted trail into the area and started to hunt. And Mrs. Frisby was right. Mother had a wonderful time—but no more fun than the rest of us.

Of course we did not realize we were collecting baroque gems. In fact, I had heard the term only for odd-shaped pearls or over-ornate styles of architecture. Probably barrel tumbling, which was in industrial use then as a method of smoothing rough casting, had never even been thought of as a way for rockhounds to polish stones. But, as with many another process, barrel tumbling received tremendous impetus and enjoyed a forced growth in World War II. More and more finishing of various types of stampings and castings, of various

kinds of material, was done by this method. And I would guess that it was some rock-hobbyist working in war industry at this time who visualized the potentialities of barrel tumbling in his hobby, and perhaps even worked in a barrel or two of stones on the night shift.

But it is during the past two years that barrel tumbling has passed the status of a fad and taken the gem-polishing fraternity by storm. Hobby magazines have been full of barrel-construction plans, methods of polishing, tales of success and failure, arguments pro and con. Opinions have ranged from the declaration that this was a millionaire's hobby to the prediction that every lapidary shop would soon include a tumbling barrel.

Out of the confusion more or less standard equipment and methods have emerged. Baroque gems are now offered for sale by most dealers. Gem hobby suppliers are now producing

tumbling barrels commercially, all motored and geared to the proper speed. If you wish, they will also furnish abrasive and polishing mixes for the various steps of the process.

The barrel usually is hexagonal in shape, with one to three compartments for stones in various stages of production. Load capacity varies from 20 to 100 pounds. It is said that a minimum of 100 hours is needed to carry stones to a final polishing, even under the best of conditions. These best conditions seldom prevail except with the experts.

Though discussion of the eventual place of the tumbling barrel continues, there is no doubt that it has become an integral part of rock-hobbyist operations. For my part, I like the stones produced in this fashion very much. But it seems to me that, past the novelty stage, their appeal will be primarily for the jewelry making enthusiasts rather than those whose chief love is the polishing of stones.

By that I mean that with tumbled gems, the hobbyist's individuality must be shown in the silver or gold work, because the stone is primarily the result of a mechanical process. But there is no cabochon—good or bad—which does not reflect the personality, artistic judgment and technical ability of its maker. When I want to work with baroque stones, I'll buy mine. But the gem cutter, also, can use the tumbling barrel to great advantage in the roughing out of larger stones to determine the best manner in which they can be cut. And it seems to me that the combined virtues of tumbling barrels will make them essential parts, at least, of every gem society lapidary shop.

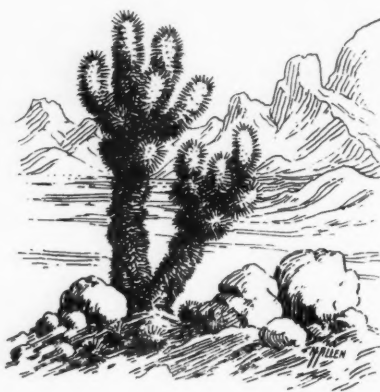
It is particularly interesting that while the stones are called "tumbled" gems, the grinding and polishing actually are done by the sliding motion of the rocks against each other, in the abrasive mixture, while the barrel turns. If the barrels were revolved rapidly enough so that the stones would actually tumble, there would be little polishing indeed. And it is this identical process of an abrasive sliding which has polished the gem pebbles of Pisgah. In this, the wind was the motive agent, eternally whisking fine sand back and forth across the surfaces of the stones. And it is because the sand was blown across the pebbles, rather than the pebbles grinding against one another as they do in water worn deposits, that the little stones are polished in their naturally irregular shapes, just like barrel tumbled gems. Those of us who have had windshields blasted, enamel polished off cars, and our faces ground raw by desert wind and sand know how effective this proc-

ess would be, given a few centuries to work.

When Lucile and I reached the sandy bay, I found that old trail into the area had almost vanished. But a new road, broken through the edge of the lava flow itself, led along the rim of the pebble field. I was certain that the pebbles would be found almost anywhere to the west of this road and, perhaps three-tenths of a mile from the highway, we started to hunt. In some places a car could be driven safely through the sandy area, in others it would dig in. But almost immediately we began to find the colorful little bits of jasper, agate and chalcedony that I remembered.

Picking out Lucile's necklace was more difficult than I had expected, however. There were quantities of stones about the right size, but their variety was so great that it was hard to find pieces to match. We finally found a number of attractive pieces by collecting types of pebbles—red moss, chalcedony and the like—on the theory that when we had enough of a general shade or material it would be possible to select from them a group that would be artistically compatible.

Most of the stones in the field run from pea size to chunks about as big as a fist, with the smaller ones in great majority. There is a possibility that this area carried only the smaller sized stones at the time it was separated from the rest of the jasper by the lava flow. Or it may be that the great concentration of small rocks is due to the excessive action of the wind and sand in the pocket, which has simply worn them down to these sizes. To know the exact reason why Nature placed her baroque gem factory at this particular point would require an intimate knowledge of the whole geological history of the huge placer jasper deposit surrounding Pisgah. Jasper of identical nature can be found in places in the Cady Mountains northeast of Pisgah, but it also can be found in the Bullion Mountains to the southeast, and the



field may represent erosional remnants from either range.

The larger pieces of gem jasper proved rugged obstacles to our collection of the little stones. No one is going to pass up a lovely piece of red and green moss, or of apple-green chalcedony, such as Lucile found, just because it is bigger than the stones he is supposed to be gathering. And somehow, first thing we knew, our collecting eyes were adjusted to the larger pieces and we had trouble seeing the smaller ones.

If one does want larger pieces of Lavic and Pisgah jasper exclusively, however, other parts of the deposit will offer better returns. Lucile and I stopped at the old collecting area, between the highway and the railroad at the Lavic turnoff, on our way to Pisgah. Despite at least 15 years of intensive collecting at this spot, we were able to find some good material close to the road in the few minutes we took to search. Farther south, jasper is reported as still abundant. There is plenty of material still to be found in the field on west of the pebble area, reached from the turnoff at highway post 114, which John Hilton described in *Desert Magazine* in January, 1946. And rockhounds who enjoy prospecting can find other sections of this greatest of Mojave jasper fields still virtually untouched.

Our pebble collecting circuit eventually brought us to the Pisgah Crater road again, and I followed it farther into the lava flow, only to come upon a locked chain at a place difficult to turn around. From this point we could see that much work had been done on the southwestern slope of the cinder cone. Later, from the California Division of Mines, we learned that the operation had been carried on by Mt. Pisgah Volcanic Cinders and that a small tonnage of cinders had been mined largely for test purposes. Cinders are used as an aggregate in stucco and plaster.

Looking out across the sea of black rock to Pisgah, from the road in the lava flow, it is difficult to imagine a scene that would appear more desolate and lifeless. And looking in at the cone and the grim basalt desert from the highway, it would seem a certainty that here was one spot which all living things avoided. But whenever I visit Pisgah there is a side excursion I always make—back into the lava flow from the sandy bay near the highway. For here the secret of Pisgah is revealed. Here are little pockets of white sand in the black rock—little valleys and hillocks and dales. And when they are visited early in the morning after a quiet night, there is scarcely a square foot of sand that is not fretted

with the markings of some bit of life, large or small.

Pisgah is not a barren and lifeless land. It is a world teeming with life, a very haven for small desert things of number beyond counting. Here are insects and lizards and snakes and packrats and kangaroo rats and pocket mice and chipmunks and rabbits and foxes and coyotes and birds. And desert tortoises—we must not forget the desert tortoise.

One of our favorite pastimes, in places like this, is to search out the tracks of the little desert folk and speculate upon the identity of the track-maker. Some are easy—the familiar pads of the coyote and the kit fox, the individual pattern of the rabbit, the tail and toe script of the mouse family. But on this last trip there was one track that puzzled us both. We tried first to read it sideways, rather than in the direction it was actually going. And that way, as Lucile said, it looked as if two mites had danced side by side, never varying their steps.

We followed the track from cove to cove, wondering at its wandering, its stubborn uphill strivings, its reckless plungings. Then suddenly, in a smoother area, we noted a wriggly twist between the tracks which could only have been made by that absurd little pigtail of the desert tortoise, and at the same time we came upon a clear imprint of his firm, round, claw-decorated hind leg. And the determined searchings into odd corners were explained. He had been seeking choice flowers or buds for breakfast.

I do not know why such an apparently barren land as the black and white desert of Pisgah should attract such a host of creatures. Of course, all the little caves and gas holes and cracks in the lava flow furnish safe homes for almost any kind and size of animal. And there is a surprising amount of vegetation in the black and white wilderness. As for water, I wonder if, perhaps, the lava pockets filled with sand do not provide numberless little natural tanks, which trap whatever moisture may fall and keep it in amounts sufficient for tiny thirsts. And, of course, there is the tremendous advantage that man is seldom seen in such barren areas.

At any rate, one trip into the little valleys of the Pisgah flow will convince you forever that this is a land of the living rather than the dead. And if you should go there after a wet spring, you also will discover that it is a land of beauty, for the wildflowers, geracea, purple phacelias and the rest, seem to glow with increased color against the somber background of lava. But why should I limit beauty to the spring?



Looking across the hardened sea of black lava the cinder cone of Pisgah presents a desolate lifeless scene. Structures at right on the cone, are the workings of Mt. Pisgah Volcanic Cinders.

Fall and winter—and summer if you are foolish enough to gamble with the fierce and dangerous heat of this burnt land—the little pebbles of Pisgah supply beauty for those who will appreciate it.

As perhaps you may remember, it was from another Pisgah, high on Nebo, above the plains of Moab, that Moses looked out and saw the promised land. I do not know whether our Pisgah was named because from its height some traveler thought he saw the desert's edge, or whether it was so named in derision. But sometimes

there is an unexpected truth in our dreams or our jests. The black and burnt land upon which Pisgah looks down is indeed a promised land for its many inhabitants, and a pleasant one.

And I think that rockhounds who love the desert in its many faces and its many moods will find at Pisgah the fulfilled promise of a fascinating and a pleasant outing. And, considering her lack of technological training and of the latest modern equipment, I think they will find Nature's tumbling barrel has done a very nice job of turning out miniature gems there.



But in the little pockets of sand, the valleys and dales, is a secret world teeming with living creatures. Cady Mountains in background.



"It is but a short walk up to the place," the Indian said. "The small gold pieces cover the sand. There is much gold."

Lost Gold of Indian Gully . . .

Fifty years have passed since the Indian, Julian Cabrias, displayed nuggets which he said he picked up from the sand in a gully in California's Oriflamme Mountains. The one living man who saw the nuggets has searched for their source intermittently during most of his lifetime—in vain. But he believes the story to be true, for he saw the nuggets.

By RUSS LEADABRAND
Illustrated by Don Perceval
Map by Norton Allen

GAUNT AND sinister, the hump-backed ridges of the Oriflamme Mountains rear up out of the back country of California's San Diego County, east of Julian and south of Banner.

Beyond the Oriflamme lies Earthquake Valley and many an old-timer can tell you strange stories about the place. Some say that the ghosts of dead Indians—Indians slaughtered by the Spanish—keep an endless watch over a hidden cache of gold here.

Others who have watched the strange lights in the night shake their grizzled

heads and give the strange, uninviting slopes a wide detour when prospecting the area.

Harry Yarnell was one man who went into the Oriflamme Mountains and saw the Indian gold.

He saw the smooth, golden nuggets gleaming in the light of a campfire on a night when the cattle were restless and sleep came hard.

Later he came back to claim this gold for his own.

It all started a long time ago . . .

It was 1914, September that year brought blistering ruin to Valley Center and Chatty Helm's ranch in the hills.

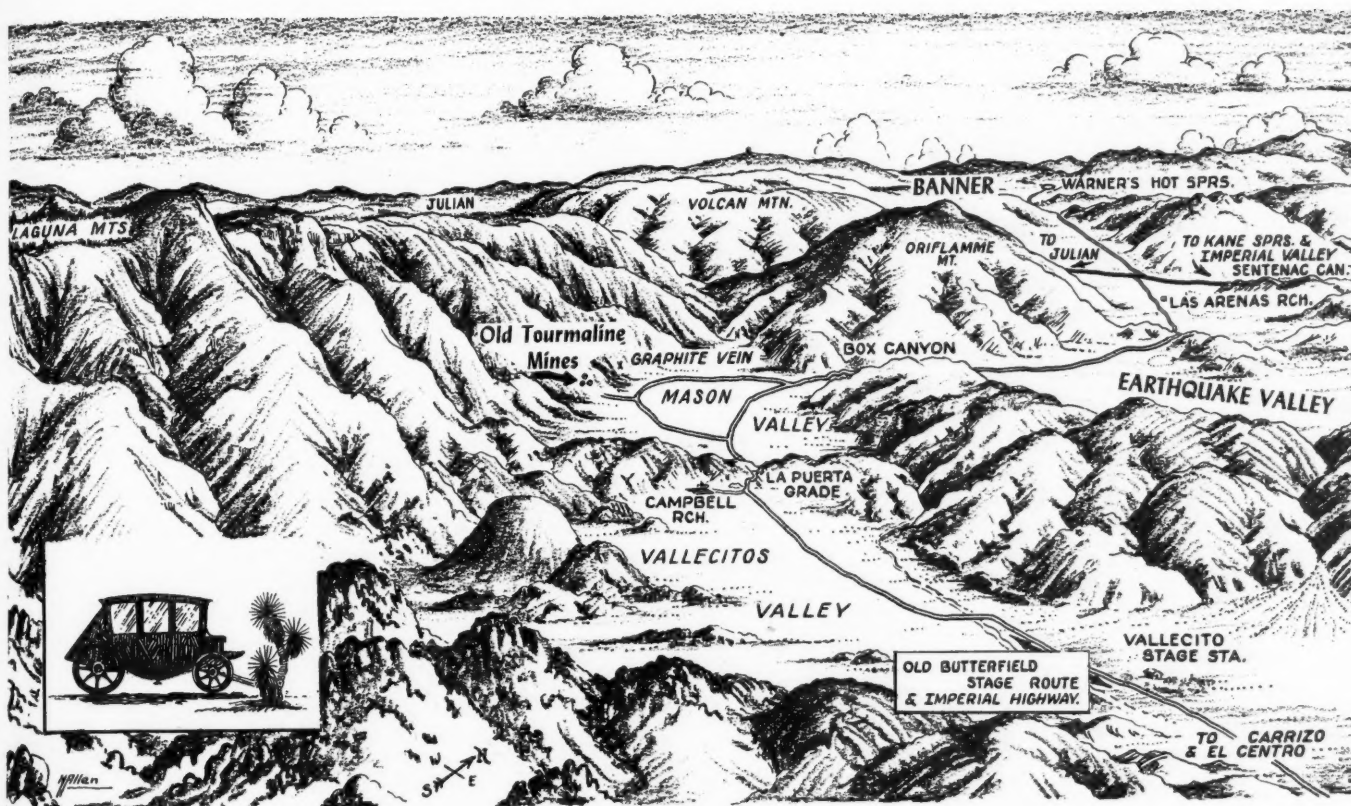
Chatty had a herd of cows, dairy

stock, and had to move them down into the Imperial Valley where feed was a little better. Harry Yarnell, a gangling youngster who was forever prospecting the back-country hills, got a riding job.

The trail led down the range through the Indian reservations and Chatty also signed on one of the Mission Indians—a quiet horseman of possible Cahuilla stock.

The first night the party bedded down where Lake Henshaw now stands. Cutting up against the horizon stood Monkey Hill, where a circus wagon was wrecked years before and its caged animals ran free to leave a colorful name in a drab landscape.

There was a spring there then, the man-made lake was to come later. Yarnell and the Indian—he called himself Julian Cabrias—got to yarning over the campfire about gold in the back country. Cabrias told of seeing



gold in many places during his casual comings and goings in the rugged wastelands of the state.

Yarnell listened to stories of gold in the Santa Rosas, of old mines beyond the Montezuma claims, of ancient diggings in the Santa Ysabel hills and of a lode in the bad country beyond San Felipe.

"I will show you," Cabrias promised. And Yarnell figured it was just another yarn and kicked dirt on the campfire and crawled into his blanket.

It was a hot, dusty trek down the San Felipe Valley. They followed the old Butterfield Stage route where mail was once carried—and twice a week at that—from St. Louis to San Francisco in 21 days.

The third night the herd made it to Earthquake Valley. The stock was restless that evening and Chatty Helm sent the Indian out to quiet the animals.

Cabrias came back to the campfire just after sunset.

"Look," he said to Yarnell and he held his palm out in the firelight.

Light from the flames caught and shone on a half a dozen golden nuggets, the largest about the size of a peanut.

"I found these like I tell you," Cabrias said in a matter-of-fact tone.

Yarnell and the Indian walked together in the growing gloom to a place

half an hour from their camp. Cabrias stopped at the mouth of a small draw. In the rainy season a stream probably rushed down out of this small canyon but now it was dry and barren.

"It is but a short walk up to the place," the Indian said and pointed up the draw. "The small gold pieces cover the sand. I have heard my people tell of this place many times. There is much gold."

And as it grew dark Yarnell made a cairn of stones at the mouth of the canyon. A small cairn, one that he would recognize when he returned from El Centro, but not a conspicuous pile that would attract attention.

The next day the herd was driven down the box canyon toward Coyote Well and on the way the Indian told Yarnell that another "place of much gold" existed to the west, over beyond Pine Valley.

Yarnell, no longer a skeptic, made mental notes and promised himself to return to the Oriflammes as soon as the riding job was over.

In El Centro things became complicated. Yarnell was offered another job—a job too good to turn down—that took him north again up the west rim of the Salton Sea and into Riverside.

There one night he told another prospector about the cairn in Earthquake Valley. The next morning the prospector, burro and all were missing from town.

It was spring before Yarnell found himself again on the trail down through the San Felipe Valley. The oaks and willows stood green over acres of grass and cattle grew fat as they grazed.

A spring thundershower followed him into Earthquake Valley and that night he watched the play of lambent fire on the Oriflamme ridges. Or he imagined he saw the racing fire balls that cut from ridge to ridge and then blinked out.

Maybe it was heat lightning playing funny tricks. Maybe it was what sailors at sea call St. Elmo's Fire. Maybe it was the ghosts of long-dead savages protecting a fortune that once was theirs.

Or maybe it was imagination.

It was hard getting to sleep that night, whatever it was.

The cairn was gone.

The spring rains might have carried the pile of stones away or a prospector from Riverside could have kicked the marker down. That following morning Yarnell viewed the spot with dismay.

Yarnell prowled the draw for hours. He was sure it was the right one but it yielded nothing.

Some of the time he crawled up the sandy gully on his knees, sifting the sand with his fingers as he went.

From there he went to the neighboring gullies. Nothing looked the same

as it had that evening in the crowding dark.

He spent a week on the spot and cursed himself for waiting and talking so much.

In Banner, where fortunes have been taken out of the ground, he got the clincher.

"Understand George Benton hit it rich," one leather-faced desert rat told him.

"How's that?" Yarnell inquired.

"Found a boulder, wire gold sticking out of it. Must have weighed a ton. Took it to the stamp mill at Pine Valley, George did. More 'n \$3000 he got outta it."

"Pine Valley!" It rang a bell somewhere. Yarnell remembered what the Indian had said about "another place of much gold" to be found beyond Pine Valley.

George Benton had found one of the Indian's sites. Yarnell went back to Earthquake Valley the next day to look again for the lost gold of Indian Draw.

Yarnell never saw Julian Cabrias again.

And he never found the rich pocket of nuggets that the Indian had sworn was up that gully in the Oriflamme Mountains.

In more recent years mines have been dug in the area and some gold has been taken out.

George Benton's big boulder of rock and gold—and it did weigh a ton—is a matter of record now.

But the big find of nuggets up Indian Draw has never been made.

Yarnell—no longer a young man—still prospects in the Oriflamme. He hasn't given up hope that some evening when strange lights dance across those barren ridges he'll stumble upon the dusty, narrow wash that was once marked with a cairn.

And then he'll walk a short way up the gully to a place where bright golden nuggets cover the sand.

It may take a while, but then what's time to a desert rat?

• • •

NAVY TO MAKE GUNNERY RANGE OF SALINE VALLEY

INYO—Word has been received in Inyo County that the Navy will take over Saline Valley as an aerial gunnery range for the U. S. Marine Corps. The exact boundaries of the new range are not available, but Admiral Rees in a letter to Representative Claire Engle stated, "The location considered most appropriate for the air-to-air gunnery range lies chiefly within a former Army Air Force aerial gunnery range comprising approximately 1,338,000 acres." Two years ago, the Navy had asked for all of this territory, however,

the present request is for two-thirds of this area. Admiral Rees went on to say in his letter: "The proposed Navy range totals 879,360 acres, largely public domain lands, which can be acquired free of claims and cost. Private claims, chiefly in the form of mineral and grazing rights, are confined to about 50,000 acres in widely dispersed locations throughout the range. The acreage includes state school and tax deeded lands. The Saline Valley gunnery range was authorized by Public Law 534 of the 83rd Congress. To implement this project, \$160,000, prin-

cipally for the purchase of private claims to mineral and grazing rights, have been requested in the Supplemental Appropriation Bill. This bill was subsequently approved by both the House and Senate before its adjournment." District Attorney Loundagin, who has waged a two-year battle to prevent this action, said that unless the Navy relents, the road which Inyo county has built in Saline Valley recently, would be useless because portions of it would go through the gunnery range and travel would be prohibited.—*Inyo Independent*.

"Wildcat" of the Mojave Desert



Old Chief Tecopa of the Paiutes

On his first trip West, in the early years of this century, John A. Stebbins of Hi Vista, near Lancaster, California, took many photographs with his Gunlach Manhattan 8x10 camera. Recalled to the East to serve in World War I, he put most of his pictures in storage, where prints, negatives and records were destroyed by fire. A few prints he had taken with him were preserved, and several of these came to light recently. One was this photo, believed to be of old Chief Tecopa of the Paiutes.

Chief Tecopa was one of the Indian characters of the Old West. Wearing his band uniform, gift of a Los Angeles banker, and a tall stovepipe hat decorated with a faded ribbon rosette, he used to beg quarters from passengers riding Santa Fe trains on the Goff to Ivanpah run. He died around 1906, probably soon after this picture was taken, and the band uniform and top hat were buried with him. Indians came from miles around to attend the funeral and spent three days celebrating and gambling.

The town of Tecopa, California, was named after the colorful old chief. It is said that he later demanded \$200 for the use of his name, which is derived from the Paiute word, *tecopet*, "wildcat."

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Desert



Photograph by Ben Pope, Dinuba, California.

COME WITH ME

By AMY VIAU
Santa Ana, California

Come with me as dawn lights the darkness
And let us wander a desert way;
Let us go content with the silence
That lifts to the sky with the glow of day.

Let us pause in a measure of musing,
While steeped in the wonder of the desert
span
And the view of mountains rimming its
vastness
Where once the tides of waters ran.

Let our hearts be as one with the stillness
As we bar our thoughts from outer dins;
Let us garner a silence for keeping
When the desert way ends and the highway
begins.

FROM OAK CREEK VISITORS

By CONSTANCE WALKER
Los Angeles, California

We shall dream about the canyon
Where the water, mountain-cool,
Rushes down through walls of red rock
Or becomes an angler's pool;
Almost hear the oak leaves rustle
At the foot of Schnebly Hills,
Or the rattle of cicadae
Drown a musicale of rills.
And the most amazing solo
Of a tiny canyon wren
Will repeat a lyric song-burst
In our memories again.

DEATH VALLEY MOUNTAINS

By LAURA HOLLON HENDERSON
La Mesa, California

Mountains in the distance
Propped against the sky,
Lonely, secretive mountains,
Their heads towering high.

At their knees brown foothills,
In a crooked row,
Stand like little children
That forgot to grow.

Desert Sunset

By GEO. F. RANSOM
Los Angeles, California

The mellow light of a sun unseen
Slips over the jagged crest
Of the rugged peak (whose slopes of gray
Seem like a barrier 'twixt night and day,
As they rise on the east and west),
While it paints on the crags of the east-
ern range

A marvel of colors that ever change,
In tint and tone and hue,
As pink gives place to shades of red
On the sunny side of the watershed,
Then turn to maroon and blue;
While over the peak bands of sepia lie
Which soften to blend with the azure sky.
Then the sides of the hills grow dim
And the glades grow cold in gray and brown,
For the day is done and the sun is down
Over the earth's round rim;
And night paints black the desert scene.

OLD ROADS

By ENOLA CHAMBERLIN
Los Alamitos, California
I traveled back along old roads today,
Beneath a sky fresh-washed with indigo.
The greasewood made the same dark ap-
plique
Upon the desert's wide-flung domino.
The centuried hills still slumbered, no decay
Had marred their robes of tawny calico.
But scattered ashes—mute and broken lyres
—Alone were left of all my singing fires.

PRAYING MANTIS

By GRACE PARSONS HARMON
Desert Hot Springs, California
The mantis is a right strange bug:
The one head-turner—very smug
About that trait just he possesses,
And praying attitude he stresses.

The one I put out-doors today
Leered up at me, then flexed to pray.
He raised those claws in prayerful pose,
But held his thumb before his nose!

AUTUMN'S LAST STAND

By ELSIE MCKINNON STRACHAN
Santa Ana, California

Autumn's tent is still tonight
Still with star-lit hush,
Yucca trees stand silent guard
Where the shadows brush.
Winds have laid their trumpets down,
Leaves have ceased parading.
Peace has filled the desert-dark,
No small sound invading.
Autumn's tent is pitched where still
Moonlit dunes wear winter's chill.

OLD RUINS

By GRACE BARKER WILSON
Kirtland, New Mexico

Not ever will you laugh again,
The ones who made your joy are sleeping;
And only ghosts of happy men
Above your ruins watch are keeping.
Through cracks within your ancient walls
Day after day the sands are creeping;
The dust of years has closed your halls,
And silence covers all your weeping.

The Steep and Narrow

By TANYA SOUTH

Still one by one they guard the trail,
The Sentinels that never fail—
Staunch Virtues. Ready, one by one.
Justice stands firm beneath the sun,
With beetling brows. Prim Prudence,
too,
And Conscience waiting all anew
To judge your bidding. Proud and
fine,
Nobility salutes. There shine
Sweet Kindness, Tenderness and
Truth.
They are the very gist and truth
Of our evolving. There they stand,
All at attention, all on hand,
Swift to salute, pass or retard
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Pyramid Lake, Nevada, from the east. The pyramid to the right may have been the "very remarkable rock" for which Fremont named the lake in 1884. The "Squaw and her Basket" (see photo, facing page) is dwarfed in the center of the picture, with tufa formations to its left. Anahoe Island in the right background.

Legendary Lake of the Paiutes

According to Indian legend, Pyramid Lake, on the Paiute reservation in Nevada, was created by a heartbroken mother's tears. Geologists, of course, have different theories, in spite of the huge tufa squaw and weathered rock basket which still stand on the east shore, mute testimony, as it were, to the Indian tale. Here is the story of a fascinating desert lake, largest remnant of a once great inland sea—its geology, history, fish and bird inhabitants and the Indians who live nearby.

By JANE ATWATER

Photos by Adrian Atwater
Map by Norton Allen

AT FIRST we thought it was a mirage. We were driving north from Reno on Highway 33 through Nevada desert hills when we topped a barren rise and suddenly saw the incredible blue expanse of Pyramid Lake spread out below us. Its cool turquoise beauty seemed out of

place in the dry hillocks and washes of the surrounding desert.

The treeless shoreline curved gracefully, interrupted occasionally by piles of tufa-encrusted rocks in weird formations. Giant heads, big beehives—some overturned to display more effectively their honeycomb structures—and a variety of designs captured our fancy. We let our imaginations run wild and identified butter churns, teddy bears, cherubs and patriarchs all entombed in stone.

Pyramid Lake's water supply comes from another famous western lake not more than a hundred miles distant as the Truckee River flows. Lake Tahoe, largest of the Sierra Nevada lakes, is annually replenished with spring runoff from heavy winter snows and shares this bounty with its desert offspring 2500 feet below.

From Lake Tahoe, at an altitude of 6225 feet, the Truckee River tumbles down the eastern Sierra slope across the California-Nevada border, rushes through the deep gorge of Truckee Canyon bisecting the city of Reno and then meanders through the desert to empty itself into Pyramid Lake below. Tahoe and Pyramid lakes are less than 50 air miles apart.

Highway 33 travels the southeastern end of the lake until it intercepts High-

way 34 angling north at Nixon. Pyramid Lake lies entirely within the 325,000 acres set aside as a reservation for the Paiute Indians. Administrative headquarters are at Nixon. The tribe is incorporated, and the chairman of the Tribal Council is Avery Winnemucca, great-grandson of the famous old Chief Winnemucca.

The main street in Nixon is paved, gas pumps are conspicuous in front of the Paiute Trading Post where tourists stop to buy Indian handicraft, and vehicles of all vintages are parked wherever seemed convenient to their Indian owners.

At the Post Trader Store, which has been in operation for 65 years, we met Elda Ackerman. Elda barter in the old-fashioned way, trading food and clothing with the Indians for their craft work.

Brother David, the former Gareth Hughes of early day moviedom, is the Episcopal missionary in Nixon. So great is his concern and affection for his Indians that he has turned down offers to return to Hollywood and fame. His message to his congregation is simple and direct, and he is a highly respected and dearly loved member of the community.

Besides the two stores, there is a general meeting hall, headquarters building for reservation authorities, a school and Brother David's church. Of the 450 Paiutes on the reservation, most of them live in and around Nixon, on their ranches or smaller plots of ground. The principal industry is cattle raising. Most of the Indians' needs are fulfilled at the trading posts. Occasionally a special purchase necessitates a trip to Reno, 40 miles distant. A trip to the city is an important event in a Paiute family's life.

Approximately eight miles north of Nixon on Highway 34, a dirt road heads north. We followed it through cuts and over hills until we found ourselves "opposite a very remarkable rock" as Fremont called it when he camped there in 1844 on his second trip of exploration through the northwest. This rock, Fremont noted, "rose, according to our estimation, 600 feet above the water, and from the point we viewed it, presented a pretty exact outline of the great pyramid of Cheops." Fremont named the lake Pyramid Lake.

Standing on Fremont's old campsite, we looked up at the precipitous three-sided mass of igneous rock. A white band of crusted lime 40 feet high encircles the base and marks the water line of historic times. A few weather-beaten evergreens cling to the top of its otherwise barren surface. On the

western facet of the pyramid about 10 feet above the water line two streams of boiling water shoot forth under terrific pressure, pouring an estimated 200 gallons of water a minute into the lake. High up on the pyramid, steam issues from fissures in the walls.

Our interest shifted from the pyramid to the "Squaw and her Basket," a tufa formation on the shore below. We recalled the story of the easily recognizable rock.

"Many years ago," the Paiute legend relates, "an old Indian woman had two sons who were constantly quarreling with each other. As the fights became more frequent and violent, their mother told them unhappily that they must part. She pointed to the north and sent one in that direction. The other she guided to the south.

"Then the old woman, her heart heavy with sorrow, took a basket and walked into the desert. She sat down and began to weep, her tears flowing into a pool until it became a lake." According to the legend, this lake is Fremont's Pyramid Lake.

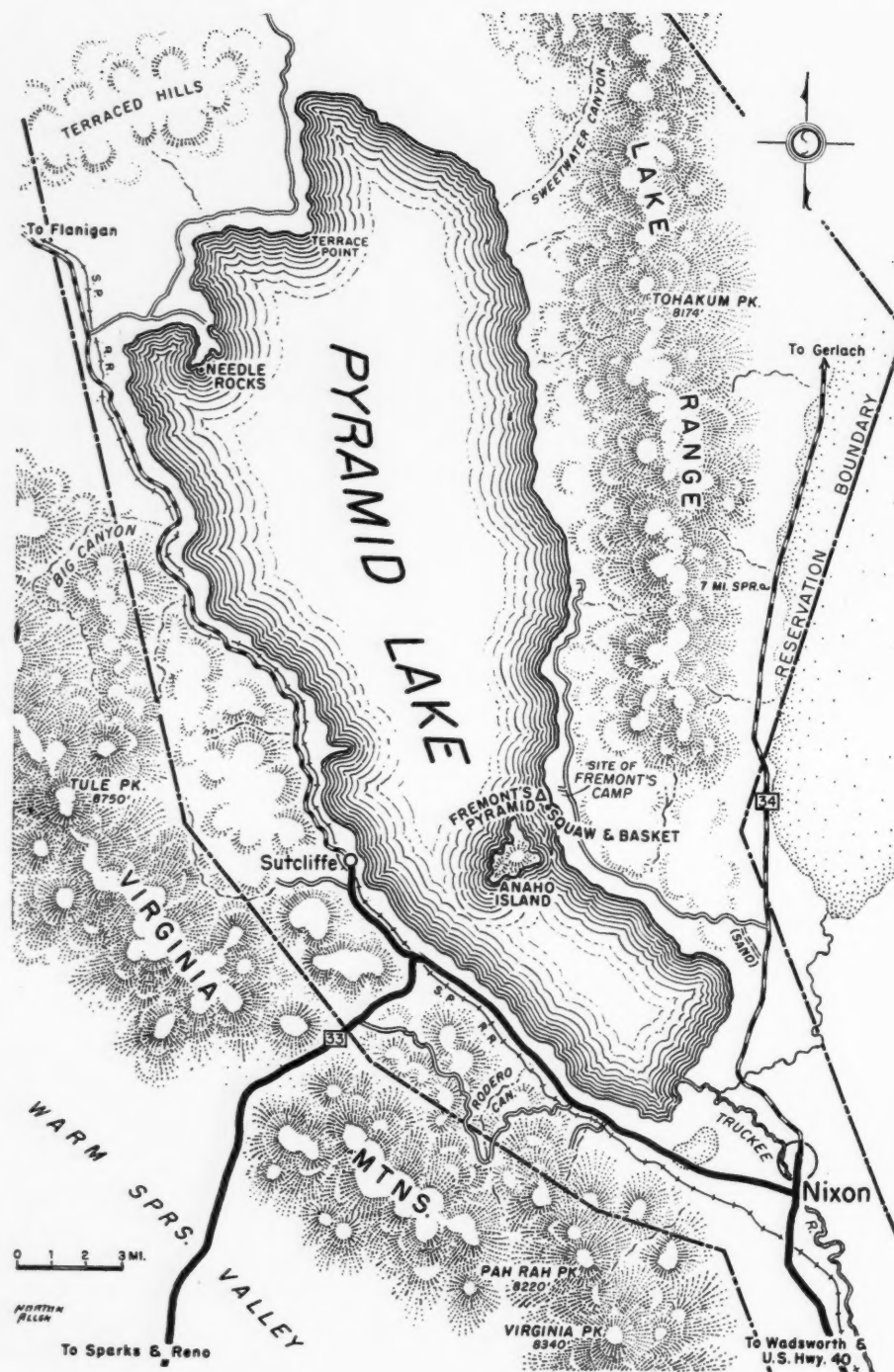
To give some credence to the myth, the Paiutes point to the "Squaw and her Basket" sitting on the east side of the lake near Fremont's pyramid. This peculiar formation, an igneous cone thickly veneered with calcareous tufa, has a striking resemblance to an Indian woman. The basket, an immense rock hollowed out by wind, water and sand, lies at her feet.

The Squaw and her Basket. According to Paiute legend, an Indian mother, mourning for her departed sons, created Pyramid Lake with her tears.



Two cormorant fledglings on Anahoe Island in Pyramid Lake. On this island, cormorants, sea gulls, pelicans and other water birds are protected by the Wildlife Service.





To the east of the pyramid is Anahoe Island, a three-humped mountain backbone which rears out of the water 500 feet. The western edge of this island is steep and rugged. The eastern flank drops to a sloping beach which extends for a mile before it ends at water's edge. On this shoulder, protected from the westerly winds, thousands of pelicans, cormorants, sea gulls and a few other species of waterfowl live under wildlife service protection. Perhaps the most notable feature of the island is the thousands of white pelicans which fly here every spring to rear their young. These spectacular

and clumsy migrants settle down on their breeding grounds in March. If one scans the skies during the season he often is rewarded by the thrilling sight of great irregular wedges of dozens of snowy white bodies swinging in wide circles high in the air, flashing black bordered wings.

Since these birds, like the cormorants and California brown pelicans, nest in large colonies, one may find four or five areas, each covering more than an acre, on the higher shoulder of Anahoe Island. When a new flock arrives, hundreds of parents set about the business of building nests to de-

posit the usual two chalky white eggs. Then incubation begins with the sun taking its turn at the nest. The eggs hatch after four weeks and the naked youngsters lie in helpless ugly squalor, panting in the hot sun which seems intense enough to roast them alive. Occasionally the mother may be seen standing over them with her wings outspread to protect them from the heat. The nests lie so close together and look so much alike, one wonders how the parents know their own, or how the eggs and the young survive the awkward antics of the oldsters as they flap their wings and paw the brush and ground with their feet when they take off for flight.

When feeding time comes, the parent bird stands at the edge of the nest and regurgitates a half digested mass of small carp, chub or minnows into its large orange colored bill and the little ones help themselves.

A visitor to the colony may be surprised to note the different stages of development in each area. In one may be eggs and very new arrivals; in the next, new arrivals are being trampled and crowded by an older brother or sister already covered with a light sprinkling of white down. In still another, adolescents with flight feathers already well developed will be huddled together among the bushes.

On warm days the birds will stand around with their mouths wide open, panting like dogs after a chase, their pouches shaking with every breath. When one goes near, the youngsters will stagger off on their big webbed feet with wings dragging at their sides like poorly handled crutches. The young birds huddle together in a small place. Those on the outside push and climb to get near the center, until it looks like a toddlers' football scrimmage or a rugby scrum.

A number of years ago, the University of California carried out an interesting survey at Pyramid Lake. There were at that time an estimated 10,000 pelicans on the nesting ground with 10,000 young by late July. Pelicans have been coming to Anahoe Island for several decades and always go back to the same shoulder of the mountain for their nesting.

Anahoe Island has been set aside as a game refuge by the United States Wildlife Service and all these birds come under its protection. Very few game birds make the island their breeding place.

We retraced our path on the west side of the lake until, 17 miles from Nixon, we came to the Pyramid Lake Guest Ranch. Here Harry Drackert, one-time rodeo star and professional

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bronc buster, raises race horses and takes guests on pack trips. Some of the trips are for game hunting. Other outings are for the rockhounds who comb the countryside for cutting material. In a quick survey I noticed chalcedony, some moss agate and a few pieces of petrified wood. Other hobbyists collect artifacts. Harry has a fine collection of his own on display.

The Southern Pacific Railroad crosses the back of the guest ranch and in the early days a narrow gauge baggage car was left there. Now eight children attend one of the most unusual schools in America in the discarded car.

The site of the present day ranch was at one time a Pony Express stop and later became a stage coach stop on the road between Reno and Klamath Falls, Oregon. It was called Sutcliffe after the man who ran the station, and the name remains to this day.

Several miles to the north, a Southern Pacific maintenance crew has its headquarters. Except for Nixon, the guest ranch and the railroad crew, the shores of the 35-mile long and 18-mile wide lake are uninhabited.

At the far northern end of the lake, accessible only by dirt road, are the "Needles," rugged masses of igneous rocks, coated thickly with calcareous tufa. They are all connected at the base and rise in varying shapes to a height of 100 feet. When Fremont and his party first passed this way, these pinnacles were far out in the water, but today they are land masses. From several of these flow streams of hot water.

The geological theory for Pyramid Lake is quite different from the legend of the "Squaw and her Basket." About 20,000 years ago, most of western Nevada was covered by a huge inland sea named Lake Lahontan after a French explorer. Scientists have carefully traced its outline over western Nevada. It was contemporary with Lake Bonneville, another prehistoric body of water which spread over vast spaces of eastern Nevada and western Utah, and of which only the Great Salt Lake remains today.

Lake Lahontan diminished over the ages until all that remains are Pyramid Lake and Walker Lake, far to the south. Various fossils common to both Pyramid and Walker lakes date back at least 15,000 years.

The surrounding countryside has evidence of prehistoric life. Mummies have been found in burial caves. Last year, three were taken from one cave near the shores of the lake. New caves containing artifacts of prehistoric peo-



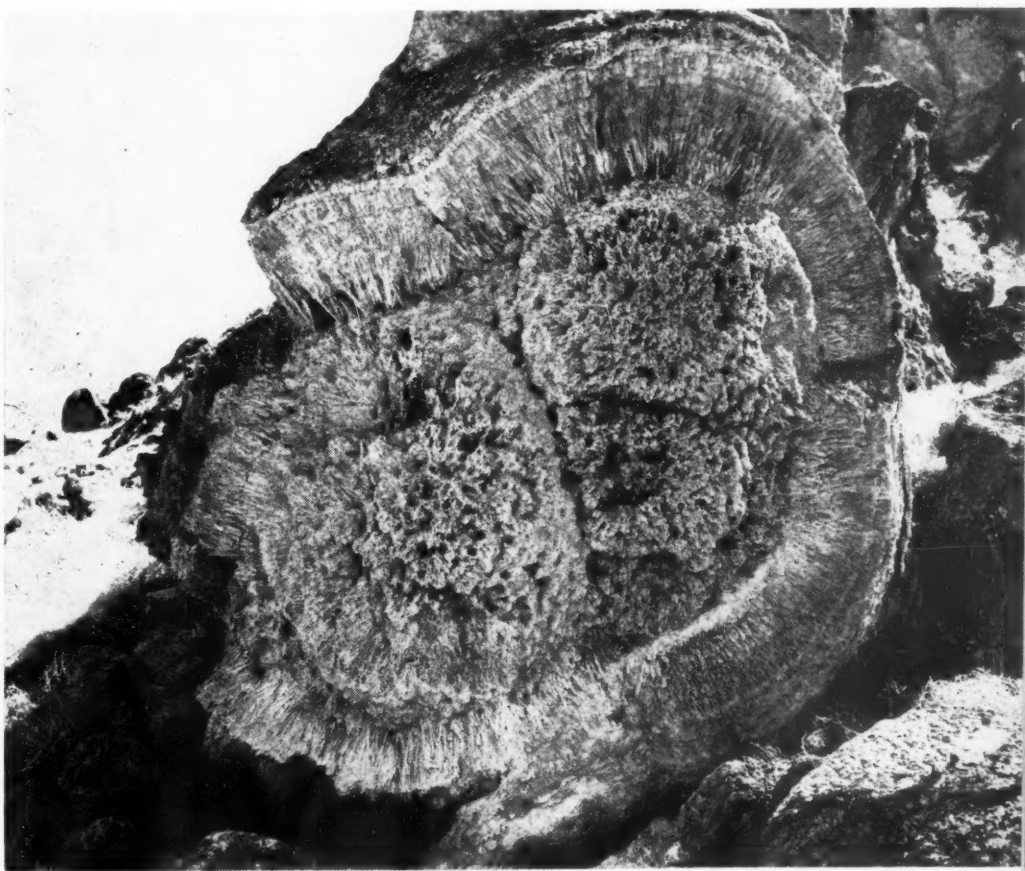
The Needles, a cluster of sharp stone teeth rising on the north shore.

ple are found and explored annually. Some contain evidence of several tribes occupying the same caves at different eras. Several layers of culture, basket fragments and artifacts have been found and studied. Petroglyphs by the thousands cover rocks above but near

the shore line. Fossils of the *eohippus*, or prehistoric horse have been uncovered. Investigation of these places will continue for some time.

The most recent shore line of Pyramid Lake resembles a great arena with 19 separate and distinct benches on

Close-up of one of the many tufa formations which line the shore, showing intricate interior designs.





No imagination is required to appreciate the profile of this drowsy stone gentleman, one of the tufa formations on the east shore.

one mountain side. These benches designate the various levels of water as the lake dwindled to its present size. They are covered with sand mixed with a profusion of tiny shells. These shells were living mollusks which thrived in Pyramid Lake long before the Sphinx was built in Egypt.

Although Pyramid Lake is a fresh water body, it has no outlet. Living creatures still inhabit its depths, but slow desiccation may change this condition in the future. The Truckee River formerly poured all its flow into the lake and maintained a level balance. Nevada irrigation canals, built about 50 years ago, diverted much of the river water to more arable lands.

As the result of these adverse conditions, Pyramid Lake is receding as much as 5 feet a year. An occasional heavy run-off in the Sierras sometimes reverses the trend temporarily. At several places the lake has been sounded to a depth of 1500 feet, so it isn't likely that there will be a big elongated dry hole in that part of Nevada for some centuries to come.

Since the Truckee channel at the southeast end of the lake became sand clogged, it has been impossible for the fish to go upstream to spawn. Some cutthroat and bass are still caught on the line, but catches are small and in-

frequent. Attempts are being made to restock the waters with trout found in lakes in northern Idaho, and Kokanee salmon from Oregon. By next season, fishing should be good again in Pyramid Lake. The lake is unrestricted, although the Indian Service at Nixon has control over fishing and boating privileges.

In its incredible setting, Pyramid Lake is a beautiful spectacle, and a fascinating classroom for geologist, historian, naturalist, archeologist, rock-hound and student of fish, bird and animal life. We never tire of our visits there, and leave each one with a feeling of awe for the works—and the quirks—of Nature.

PALM CANYON RE-OPENED FOR 1954-55 SEASON

Closed to the public during the summer by order of the Cahuilla Tribal Council, Palm Canyon, four miles south of Palm Springs, California, has been re-opened for the season. At the toll gate where visitors are permitted to enter the canyon from 9:00 a.m. to 5:00 p.m., an Indian gatekeeper collects a 50-cent admission charge from adults and 25 cents for minor children over 12. Those under 12 are admitted free. Receipts go into the tribal fund.

Hard Rock Shorty

of
**DEATH
VALLEY**



Death Valley was having one of its periodic sandstorms. Dust was so thick outside the Inferno store it was impossible to see as far as the gas pump. Inside, a half dozen motorists who had stopped for shelter until the wind subsided were hovering around the old wood-burning stove.

Even Hard Rock Shorty had forsaken his habitual bench-seat under the lean-to porch and was lounging inside on a stack of potato bags.

"How long do these sandstorms generally last?" one of the dudes asked.

"Sometimes five or six days—sometimes longer," was Shorty's reply. One of the women in the party gasped in dismay.

"All depends on where she's blowin' from," Hard Rock went on. "Them northeasters from Nevady is the worst. "Remember one year when Pisgah Bill started fer his mine up in Eight Ball crick with a pack-load o' grub. Sandstorm hit 'em before he got there. Blamed mule wouldn't face it, an' they wuz no shelter. Bill finally got the mule t' the mine by turnin' 'im around an backin' 'im all the way home. Even then, the sand blasted all the hair offen that critter's hind end.

"Jest like sandpaper when the wind's blowin' thataway.

"Pisgah Bill figgered they ought t' be some way to put all that wind to work, so he rigged up a sort o' windmill out at the mine to pump water an' maybe turn the grindstone to sharpen the drill bits. Worked all right fer awhile, but one o' them storms turned them propellor blades so fast it burned out the bearings, an' when Bill climbed up there to fix the thing that sand blasted the whole contraption right out from under 'im an if the wind hadn't blowed Bill into that drinkin' pond he had fer the burros a hundred yards downstream he'd a been bad hurt.

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ZINE



To those who come to the Desert with friendliness, it gives friendship; to those who come with courage it gives new strength of character. Those seeking relaxation find release from the world of man-made troubles; for those seeking beauty, the Desert offers Nature's rarest artistry. This is the Desert that men and women learn to love.

LIFE ON THE DESERT

By GRACE M. WILTON

Grace M. Wilton wept when her doctor in Chicago told her she must go to the desert for her health. She wanted no part of the heat and dust and crawling things. But when she opened her heart to the desert in Arizona she discovered that it offered not only health but also such contentment as she had never known before.

"ONE MORE siege of pneumonia and I won't answer for you."

The short, gray-haired doctor eyed me thoughtfully as he revealed my condition and added a "sentence" to life in the desert.

"It's not a bad place," the doctor added when he saw me shrink at the thought, "it's warm, dry and sunny. Not like this." He nodded to the window. A cold wind whipped mushy snow flakes against it; rivulets of icy water squirmed down to the sill.

I didn't want to leave my beloved Chicago for Arizona. To me it was a strange place with strange people—and animals. I shuddered.

"Here are some folders. Study them, let me know when you can leave." The doctor offered a self-satisfied smile that only angered me as he closed the door.

I watched the snow for a while, my cheeks becoming as damp as the win-

dow as tears ebbed from my eyes. I brushed my face dry and read the folders which reported only 10 inches of annual rainfall for Arizona and 325 days of sunshine. I dropped the folders on the bed with a sigh, reluctantly resigned to sand and heat and bugs—and crawling animals.

That is how I came to Arizona. Sick, lonely and fearful. That was the unhappy beginning of a lasting friendship.

My first look at the desert was from the Pullman window one morning in late spring, 1950. A gray-green landscape was sliding by. It rolled away for miles, ending at the foot of far distant mountains outlined in purple against a blue sky. This was Arizona! Desert country!

I didn't expect to see anything growing on it. Desert had meant sand to me. It was my first discovery about this new land, and very pleasing. Later

I learned that over 100 edible plants grow in this semi-arid country and in spring, a profusion of vari-colored flowers make it a garden of infinite beauty.

Within a week after leaving Chicago I was settled in a small cabin on the edge of a rocky canyon that opened onto the desert. Each day I took a short walk and began to get acquainted with the strange, unreal world around me. At first I could see nothing lovely about the hot, dry and dusty land.

Then, weeks later, on one of my morning hikes I met an old prospector. He gave me something to think about.

"You must be friendly to the country, let yourself go and enjoy your walks," he said. "The desert is like a person. You have to let her show you her wonders, her tragedies and her moods." The old prospector's eyes gazed off to the distant mountains; his gnarled hands were folded on top

of a cactus cane. "And she has many gifts to offer," he murmured. Then with a friendly nod he moved down the trail that disappeared amid the cholla cactus and the tall Spanish bayonets with creamy white flowers that look so much like wax candles.

"Gifts?" I mentally questioned, looking after him. "It's true, the desert is giving me one precious thing—health." I smiled. My heart grew light and the sand wasn't drab and colorless. It had the sparkle of gold.

A marvelous thing happened next morning. I awakened with the hunger of a working cowboy. I impatiently waited for the coffee to finish dripping; the smell of frying bacon had never been so delicious. It was the first time in months I had been hungry.

I was well! The sun had been healing my sick body while the desert occupied me with a variety of new interests. This dry tawny land held new fascination.

As my strength increased I took longer and longer walks. I hated to turn back when the hot sun began to beat down on me. But like other desert creatures I knew it was best to stay in the shade during the heat of the day.

Each morning I rose at dawn to watch the glorious changing colors of sky and land. Each evening I took my seat on a huge boulder for the show the sun seemed to put on for my benefit. Never had I seen such splashes of color. I'm sure no painter could capture the vividness of a desert sunset at its height. It tinted the surrounding country and I thought of the desert as "putting on her evening gown."

I came to know the animals I met. I learned their names, lizards, horned toads and the ugly tarantula.

"Just give him room and he won't hurt you," the old prospector advised when he discovered me watching one that was blocking my favorite trail. I studied the black and yellow fuzzy spider for a while, thinking about all the tales I had heard of him. He didn't seem so frightening when met face to face.

One day as I walked to a huge cholla where a little cactus wren had made her home, I heard a sound in some rocks. I searched and found a lizard firmly anchored by his tail in a spider's web. Somehow he had fallen into the trap and his tail was tangled in its sticky mesh. His feet just cleared the ground as he swung in a desperate effort to break away. I watched for a time, marveling at the strength of the web. The lizard was perhaps seven or eight inches long and at first I thought he could free himself easily. But not

so. He was Mrs. Spider's winter meat supply. She spun around him trying to catch his feet. I released him with my stick and he hurried away. To me, he was no longer a "crawling creature"; he was a friend.

Through the summer I watched the cactus family, the shoe sole, barrel and stately cholla. From flower to bud and fruit I saw them grow. In the fall the old prospector taught me how to burn the thorns off the prickly pear and eat it. I read how the Indians dried the fruit of this cactus and prepared it for winter use. It was a source of sugar.

Each day I gazed at the fluffy white clouds floating across the desert's sky and felt peace and silence enter my heart and soul. But it took a trip into town to show me the preciousness of my quiet way of life. On that trip I realized I had gained more than health during my stay on the desert. I had found harmony and satisfaction, an interest in the things about me and a

oneness with God and nature that is lost to those of us who have lived in the city surrounded by hurry and noise of man's constant business. I had come to think of the desert as a protesting mother who is eternally caring for, and feeding her children. When her families die she tenderly covers them with sand and sees that their graves are not forgotten by spreading them with bushes and flowers of her own design.

With a start I realized one day that I loved the desert. I knew she loved me too because she had shown me some of her secrets. With a humble heart I thanked her for her gifts of health and peace of mind, tranquility of soul and knowledge that there is a higher power that governs and rules in the land.

So now, with pride, I claim her as my friend—the gracious desert who is always ready and willing to help those who open their hearts and minds to her.

Clear Photo Weather . . .

Cooler weather of November makes it one of the more pleasant months of the year for desert trips by photographers and, serving camera enthusiasts doubly, reduces the saturation point of the atmosphere clearing it of much of its usual haze. It is a good month for taking pictures of panoramic scenes which are ideal, along with any of the hundreds of other possible desert subjects, for entry in the monthly Desert Magazine photo contest. Both professional and amateur photographers are invited to submit black and white glossy photographs of desert subjects for judging by the staff.

Entries for the November contest must be in the Desert Magazine office, Palm Desert, California, by November 20, and the winning prints will appear in the January issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA

ON DESERT TRAILS WITH A NATURALIST-VIII

Bird That 'Sleeps' All Winter

By EDMUND C. JAEGER, D.Sc.

Curator of Plants

Riverside Municipal Museum

9N NOVEMBER of 1946 Milton Montgomery and Jerry Schulte accompanied me on a Christmas vacation trip to the picturesque Chuckawalla Mountains, north of Salton Sea and west of the Colorado River in California. Little did we realize that it was to be a journey momentous in the history of ornithology. It was on this holiday outing that by merest chance, we found in a niche in a granite rock that unique specimen of Nuttall's Poorwill which was to make possible the discovery of the phenomenon of hibernation in birds.

When first we saw the small soft-feathered granite-gray bird nestled neatly in a fist-sized hole in the rock by the side of a narrow ironwood bordered gully, we thought it might be a dead or sick bird. But when it was observed more carefully I suspected it might actually be in a state of winter torpor.

That was the beginning of a series of observations and experiments that lasted over four consecutive winter seasons. Every two weeks from early November through late February, I visited the place and saw my Poorwill "asleep" in its winter quarters. Each year, after its period of warm weather activity it returned to its hole in the wall to sleep away the winter, unmindful of the handling it repeatedly got as we photographed it again and again, weighed it, took its internal temperatures and performed experiments and tests to satisfy ourselves that its physiological state was that of true hibernation with the usual loss of weight, low body temperature and lack of consciousness found in hibernating animals such as hedgehogs and ground squirrels.

When I reported my findings in ornithological journals, bird students all over the world were keenly interested, for here was the first concrete evidence of hibernation in birds. Soon letters began pouring in asking for further details, and accounts of my investigations appeared in many magazines. Eventually the National Geographic Society requested that I write a popular account for readers of their

Four years ago Dr. Edmund Jaeger surprised the scientific world by publishing his discovery of a Poorwill which he found hibernating in California's Chuckawalla Mountains. Since then, Dr. Jaeger has received many letters, indicating that hibernation is a characteristic of the Nuttall Poorwill. Here is the latest information about the bird that sleeps all winter.



When in hibernation, the Poorwill could be picked up and photographed. After months of torpor, when warm weather came, the bird became active and flew away.

popular and beautifully illustrated monthly magazine.

My article on the hibernating poorwill appeared in the February, 1953, National Geographic Magazine. Since then so many persons have inquired about further knowledge of the winter behavior of this unusual bird that I feel I should pass on to *Desert Magazine* readers some interesting information that has recently come in to me.

Let me say first of all, that several hibernating poorwills have lately been found. One reported in September, 1953, by Florence Thorburg, of Tucson, Arizona was brought in to the Arizona Desert Trailside Museum. It was discovered in January of that year by two young men who were collecting an agave in the Silverbell Mountains northwest of Tucson. As a pick axe was struck into the ground to loosen the plant, the men noticed some feathers fly. Investigation of the source

of the feathers revealed the bird in a state of stupor under a lower leaf of the agave plant next to the ground.

Miss Thorburg reported:

"The men placed the Poorwill in the truck cab while they went on with their work of plant collecting for two hours. The warm sun, and perhaps the previous handling, caused the bird to open its eyes and become quite active. During the ride home, which took another hour, the bird was covered with a sweater and by the time the Museum was reached it was asleep. It did not waken while being observed by several people nor while having its picture taken in the sun.

"For five days it was kept in an unheated adobe building. Nights were cool but days quite warm. The bird would be inert or torpid in the morning but it showed signs of wakefulness during the warmth of the day. It was then moved outside the building to a

box set half underground. Here it again resumed its dormant state.

"On January 25 the Poorwill weighed 34.1 grams. On January 29, a cloacal temperature was taken with a quick-recording thermometer which read 13.2° C. (55.7° F.)."

This report was most interesting to me because the behavior of the bird, and the internal temperature and weight readings, were so similar to those I had previously reported, they corroborated my earlier findings.

Sam King, superintendent of the Joshua Tree National Monument, wrote me last February of having a Poorwill brought into the Monument Headquarters in a state of torpidity. It was kept in a cool room for a number of days but for reasons unknown the bird died before I was able to see it.

In July of 1953, A. L. McCasland who was then convalescing from illness in the San Bernardino County Hospital sent me the following letter:

"Today I picked up a copy of the Geographic and found your article about Poorwills. Perhaps you will be interested to learn when and where I found these birds hibernating in considerable numbers during the winter of 1931-32 and 1933-34 along the San Pedro River near Bammoth, Arizona. I was collecting dry saguaro and cholla cactus wood to be used in the making of rustic furniture and found these birds inside hollow saguaro trunks. The saguaro has hard ribs that do not rot while the pulpy interior does, and in some cases it seemed that the birds had built a sort of nest or at least had dug in and covered themselves with the dry pulp. I met a prospector there whose name I can't recall who knew about these birds and their habits. They caused me to pass up some choice timber to avoid destroying their winter quarters. I saw evidence that wild animals had torn up some of these windfalls and concluded it had been done to get the birds. If you care to visit this district, it is between Winkelman and Oracle on the San Pedro River."

I afterwards talked personally with Mr. McCasland. He said he thought he had seen between 35 and 40 of the birds in winter torpor and once had brought in five of them to the headquarters building of a mine. There he kept them pretty-well covered over with saguaro saw-dust in a box for a period of several weeks. One day he went in to observe them and found that they had awakened and escaped.

In August this year Wm. F. Pasivio, a prospector at Riggins, Idaho reported to the *National Geographic Society* his experience with a hibernating Poorwill.

He wrote that he was prospecting near Wenden, Arizona, in February,



The author, standing beside the granite boulder where the Poorwill slept all winter. The bird's tail may be seen in the crypt in the rock at his left.

1944, when he found a Poorwill in a rock cavity in a dormant state. He picked up the bird and found it very light in weight. There was no evidence of breathing, movement or apparent life. He brushed the bird's feathers, stroked its head, and then laid it in a glove in the warm sunshine. An hour later, while prospecting close by he saw a bird fly away, and when he went to look for the Poorwill it was gone.

In February of this year Maud A. Minthorn of Northridge, California, wrote me and I quote the following statements of unusual interest:

"Your story of the hibernating Poorwill was especially interesting to me, because I realized that I had lightly passed over my own experience with one of those little creatures, not knowing at the time how rare hibernation in birds was. It was in the spring of 1909. I went out to teach in a one-family school in Nevada at Wheeler Spring not far from Pioche. My school consisted of the children of one large Mormon family named Wheeler. When I arrived at my tent-schoolhouse sometime in April that first morning there

was a bouquet of pink *Ranunculus (Andersonii)* on my desk, and I greeted the children and showed appreciation of their gift with so much enthusiasm that they took the earliest opportunity to show me another of their nature treasures—a Poorwill. I expressed doubt about being able to get near such a shy bird, but they assured me that I could see it at very close range because it was asleep. Sure enough there it was, back in a small hole in a bank. I thought maybe the bird was sick, but they assured me that it slept there every winter, but that it would soon waken and fly away, as spring was coming. Now, as I consider it, I am more surprised than I was then, because it would seem like an excessively long hibernation for such a small creature. I don't know how early the winter snows arrived, but the elevation was over 6000 feet, and Pioche is far inland. This Poorwill must have had nearly seven months of hibernation. Somehow the children had found this bird and were pleased with its odd habit, and went out to look for it each spring when the snow melted. I wish I had known more about birds then; the children would have been so pleased to have their discovery reported to some authority on birds."

The observations of children, as this can prove, are often most valuable and I like to encourage their natural history activities at every opportunity. Their alert inquiring eyes often see things which adults never even notice. Some of my most interesting correspondents and visitors are children who report to me the unusual things they find while on their rambles. I leave it to them to find the first birds' nests and see the spring's earliest flowers. Their questions often lead to the opening up of vast new fields of investigation, and, as a wise French savant once said, their queries are the key to philosophy.

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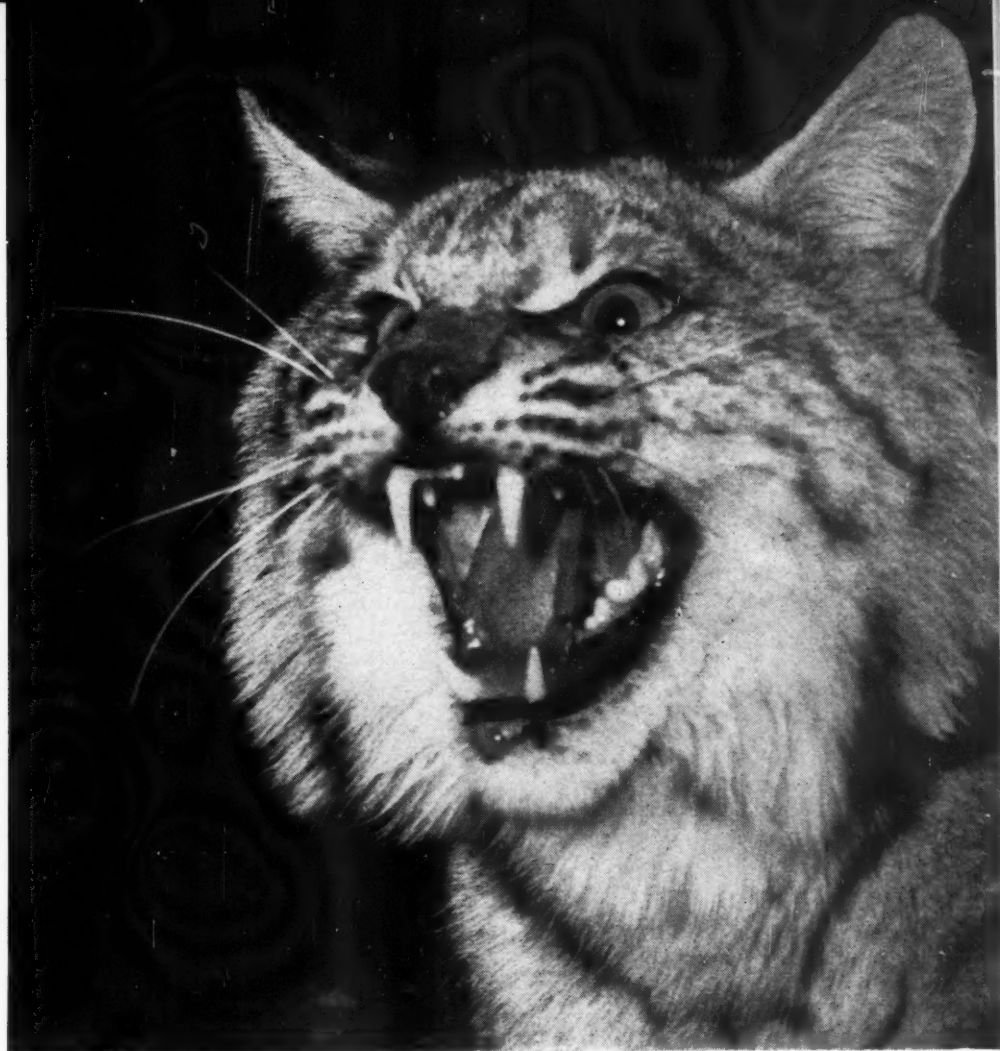
ENGLISH PROFESSOR SAYS NORTH POLE ONCE WAS LOCATED IN ARIZONA

Arizonans who have just been through a hot summer may not believe this, but according to the theory of Dr. K. M. Creer of Cambridge, England, the geomagnetic North Pole was once located in what is now Arizona. The British professor bases his conclusion on an examination of very old pre-Cambrian rocks at Grand Canyon. He believes that before the Pole arrived at its present position it wandered around the prehistoric world from the Central Pacific to Japan. About the time life began to appear on the earth, perhaps 600 million years ago, the present state of Arizona was buried beneath a great glacial cap of ice.

PICTURES OF THE MONTH

Bob Cat On Defense

Dick Randall of Rock Springs, Wyoming, won first place in Desert's Picture-of-the-Month with this close-up of a healthy bobcat. A tough scrapper when cornered, the bobcat seems as much at home on the desert as anywhere. Taken with a 4x5 speed graphic, 8 inch lens, super xx film, f. 32 at 1/100 second, with one press 40 flashbulb for illumination.



Eagle Dancers of the Laguna Tribe

Taken at the Inter-Tribal Indian Ceremonial at Gallup, New Mexico, Henry P. Chapman of Santa Fe, New Mexico, has caught in this picture the Laguna braves emulating the grace of the eagle in action. Awarded second place in the October contest, it was taken with a Rolleiflex 2.8-C at f. 11 in 1/200.



He Rode With Buffalo Bill...

Rancher, farmer and showman, Harry Knight "signed on" with Buffalo Bill's wild west show half a century ago and rode hard with the famed scout-showman as boss hostler and arena director, touring most of the 48 states. Now a farmer and cattle feeder at Yuma, Arizona, he remembers Buffalo Bill's showmanship and quick thinking that once staved off possible catastrophe.

By WILLARD H. PORTER

Photo by the Author

MANY YEARS AGO, Thad Saunders, an Indian bronc rider with the Buffalo Bill Wild West show, led a tall, gangling youth to Col. Buffalo Bill Cody's tent.

"Colonel," the young man said, "I've always wanted to meet you. I'm Harry Knight and I've heard my father speak of you many times."

"Not I. W. Knight?" Cody asked.

The young man nodded.

"Why, I knew him well," Cody said. "We used to scout for the government together, and he was the best dog-goned bronc rider I ever saw."

"Harry's got himself quite a reputation as a bronc rider, too," Saunders told Cody.

Cody appraised the youthful cowboy for an instant. Then he said, "Want to come work for me?"

"There's nothing in the world I'd rather do," the young man told him.

That was over a half century ago. Today, at 76, Harry Knight lives with his family on an irrigated farm at Yuma, Arizona. Here, he and his two sons, Bob and Dick, raise alfalfa, barley and corn and feed cattle for market. And after work, Harry Knight loves to sit back in his easy chair and talk about Col. William F. Cody and his fabulous "Buffalo Bill's Wild West Show and Congress of Rough Riders of the World."

"The Colonel," he'll tell you, "was one of the finest old men I ever knew—and he was the greatest showman of them all. I can see him now being introduced to the crowd. He'd whip off that big white hat and hold it straight out from his side.

"He wore beautiful hats. The John B. Stetson people used to make them for him and send six at a time.

"But what a showman! He was the only man I ever saw who could quiet a crowd instantly when he started to



Harry Knight broke horses for the British government to use in the Boer War, now operates an irrigated farm in Arizona.

talk. Even crying youngsters would be quiet when the Colonel was speaking."

After a few years with the show, Knight and Cody became good friends, and Knight was handed several responsible jobs. As arena director and boss hostler, he traveled through nearly every state in the union.

Part of the time it was fun; part of the time it was work. And sometimes it was downright dangerous—like the stand at Princeton, New Jersey, in the early 1900s.

As Knight tells the story: "Colonel Burk, our advance billing man, came back one day from Princeton and said

we couldn't show there. Said there was some kind of an ordinance against shows and circuses because it was a college town.

"We went in anyway and set up our tents. Heck, we had to eat! We'd been on the road a long time without a performance, and our show was our living.

"Well, an hour before the matinee, about a thousand college boys headed our way to run the Colonel and the whole outfit out of town. But the Colonel didn't scare.

"Working with his usual presence of mind, he lined up the whole show on one side of the tent and just waited.

We were all mounted and when the boys showed up, we rode right through them with an old-fashioned whoop-de-do cavalry charge. We held the matinee on time, all right.

That night there was a full house. Most of them were the same students bent on giving Colonel Cody trouble.

"He stopped that," Knight tells, "by riding into the arena and telling the audience, 'Boys I want you to be quiet. If you don't believe we're serious about putting on this show, just look behind you.'"

"The boys saw a dozen elephants chained by their hindlegs to the up-right poles which propped up the grandstands. Those boys never opened their mouths through the whole show," Knight remembers.

During the years Harry Knight was with the show, there were about 1200 riders in the troupe. These included 150 Indians, and a few of them had taken part in the Custer massacre.

"I remember one," recalls Knight, "named Lightfoot West. He was a pretty fierce looking Indian, with a Roman nose and piercing, hawk-like eyes. He used to stalk through the side-show crowds in the Midwest and East until he spotted some country boy to tease. Lightfoot would fix him with a black stare and walk toward him, slow at first, then a little faster. Usually, the victim could stand just so much of this, and then turn and run."

In 1912, Knight left the show and put his \$10,000 savings into a cattle ranch. In 1918, the year he was married, he bought the 40,000-acre Triangle HC at Camp Wood, Arizona. To supplement their income during some poor years in the 1920s, the Knights made the Triangle HC a cattle-working dude ranch. They worked cattle and ran dudes for 23 years and then moved to Yuma.

Knight has led an active life, even by old time cowpuncher standards. In 1898, before he joined Cody's show, he went to Los Angeles to break 1600 head of horses for the British government to use in the Boer war. Knight worked at the old Dakota stables on Aliso street.

In Los Angeles again, 14 years later, Knight won \$700 in what he calls one of the first big rodeos ever produced in the United States.

"That's where," he says, "the name 'rodeo' first got started. The show was advertised as a 'roundup,' and the Los Angeles newsboys—mostly Mexicans then—were told to really whoop and holler about it. But the kids couldn't say 'roundup' so they said 'rodeo.' The name has stuck."

Under the high-crowned, broad-brimmed hat which Harry Knight always wears, is a kindly face, wrinkled

and weathered by an outdoor life. A sense of humor and a real laugh to go with it are part and parcel of this old cowboy, rancher, farmer and showman—a chap who used to ride, and ride hard, with Buffalo Bill.

THE *Desert* MAGAZINE CLOSE-UPS

Russ Leadabrand, author of "Lost Gold of Indian Gully" is a newspaperman and is working at the present time on the *Pasadena Independent*. In his spare time he wanders through the Southern California hills and deserts looking for interesting stories and bits of history for his daily column in the *Independent*. Archeology and looking for lost mines and buried treasure stories are his hobby, and he has written a number of magazine articles for outdoor and men's magazines. "I'm building a file of lost gold legends that will take a lot of running down, but that's the fun of getting a good story," he contends. Leadabrand lives in Pasadena, is married and has three children.

Don Perceval, illustrator of the "Lost Gold of Indian Gully" story, is an Altadena resident and an outstanding Western artist. His oil paintings are attracting a growing audience. Perceval is a former art instructor, and has done many Indian illustrations for the Santa Fe Railroad. His latest achievement has been the black-and-white plates for Harry C. James' coming book on the Hopi Indians. He plans to move to Arizona soon, to make his home.

This month's Life - on - the - Desert author, Grace M. Wilton, has lived in the West since a small child, and in Arizona for the past six years. Her love is the desert and she would never consider living anywhere else. Relating her own experiences, her article, she said, is written in the hope that it will be helpful to those who are unhappy living on the desert. Mrs. Wilton is a member of the Haachuca Writers group. Weldon Heald is her instructor.

Jane and Adrian Atwater, author and photographer of "Legendary Lake of the Paiutes," are Nevadans by choice with hobbies that can be grouped under one word—"desert."

Also teamed as Mr. and Mrs., they live in Carson City, Nevada, in a home that houses, besides themselves, a large collection of minerals, Indian artifacts and Dawg, their white Collie.

Adrian, a photographer for the Ne-

vada State Department of Highways, was an air force photographer in India during World War Two and has worked as a ferry pilot and parachute jumper.

A native of Stockton, California, Jane moved to Nevada a little over five years ago.

Their work has appeared in *Desert Magazine* before. Mrs. Atwater authored "Lost Wells-Fargo Gold" in the April, 1954, issue of *Desert*. Mr. Atwater supplied illustrations for that article and previously won first prize in a picture-of-the-month contest.

For many years, as a science teacher in the Riverside Junior College, Dr. Edmund C. Jaeger made it a practice to take the young men in his classes out on weekend exploring trips in the desert. During the years he was a member of the faculty, many hundreds of students, in groups of two or three on each trip, camped with their teacher and received instruction in the field both in the natural sciences of the desert and also in the art of camping and living together out-of-doors.

Many of Dr. Jaeger's former students have now become successful in business and in the professions.

In September Dr. Jaeger sent out invitations to all his former companions on the desert trails for a reunion campfire party near Negro Buttes on the Mojave Desert. The evening was devoted to reminiscence and to further instruction—for Dr. Jaeger is always a teacher. He hopes to make the reunion campfire an annual event.

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LETTERS

Advantage of Dry Mesas . . .

San Diego, California

Desert:

Back in the Gay Nineties, doctors in Boston sent "lungers" to Phoenix to get well in the dry, desert atmosphere. But they did not do so well in the irrigated areas. Someone thought of moving them out on dry mesas, far from the irrigation ditches, and a colony was formed seven miles out on Central Avenue, north of Phoenix, at the edge of barren granite hills. Result—they got well!

I know from personal experience, that 120 degrees is more oppressive in Phoenix, Yuma or El Centro, than on dry mesas near Castle Dome, Fortuna, or Picacho. In Randall Henderson's article "We Built for Summer Comfort" in July's issue of *Desert*, he suggested drinking a lot of water. That is very good. Also deep breathing helps to stimulate the heart-action. Water should be fresh and pure from artesian wells such as found at Thermal and sold all over the desert southwest. It should be cool—never chilled with ice-cubes. The Mexican people cool their water by hanging in the shade, an earthen Olla which is porous enough to permit a slight seepage, the evaporation from which does the cooling. They build their adobe house always with a room on the east, another on the west, with a wide entry-way between, where the prevailing north and south breezes can move freely. They also keep the earth sprinkled to help in evaporative cooling. Many of these people live over one hundred years, or did until too much contact with modern progress and civilization.

The Jack Rabbit Homesteaders have an advantage over all those living in irrigated valleys. For health of body, mind and spirit can be found in the granite hills.

LEO TURNER

Snake Bite Treatment . . .

San Diego, California

Desert:

As a desert traveler, I am interested in snakes, their habits and precautions against them. I have always carried a snake bite kit called Cutters Compak for emergency, but I have heard from various people that the anti-venom in these kits deteriorates after a short time. An advanced student in first aid tells me that at Camp Pendleton, they use Ethyl-Chloride for snake bite treat-

ment. It comes in metal flasks about 1 inch in diameter and 6 inches long. It is sprayed around the bite and freezes the area until the services of a physician or a hospital can be reached.

OTTO J. BAUM

Save the Pictographs . . .

San Bernardino, California

Desert:

I was happy to see, in "Just Between You and Me" in the July issue of *Desert Magazine*, a plea made for the preservation of the badly deteriorated Giant Pictographs on the Colorado River above California's Palo Verde Valley.

In March, my wife and I made a trip along the Colorado River, from Needles to Blythe. Main purpose of the excursion was to visit these pictographs. We had heard and read much about them, and we wanted to see them.

We were indeed distressed to see how these figures have been ruined by vandals and hoodlums who had driven cars over them and have written their names next to them.

On the highway, the state has gone to considerable expense to build a rock cairn and place a bronze plaque describing the pictographs and directing tourists to them. But nothing has been done to fence off the area or even to warn against their destruction.

I understand a society exists which is interested in the preservation of Indian carvings, rock inscriptions, etc. They should be contacted before the Giant Pictographs are destroyed completely.

JOE B. MULCAHY

Desert's editors know of no pictograph-protecting society. Perhaps one of Desert's readers has heard of such an organization which would be interested in preserving the fine set above Blythe.—R.H.

Old Jalopies Wanted . . .

6081 Atlantic Ave.
Long Beach, California

Desert:

With some 500 other Southern Californians I am a member of the Horseless Carriage Club, of which you, no doubt have heard. We are constantly searching for old automobiles of any make that we may restore to their original condition, or if beyond repair use for parts to restore other old cars. We are not profiteers in that we hope to restore these vehicles and sell them for profit.

The favor that I ask is, would it be possible to have a request for information regarding the location of old

abandoned cars or parts of cars that may have been observed by your readers in their desert travels, printed in the "Letters" department of your magazine?

What ever help you might offer would be greatly appreciated.

L. P. MCGINNIS

San Bernardino, California

Desert:

We believe that the citizens of southern California should know why the Sierra Club, the Izaak Walton League, and the Audubon Society combined to defeat the often repeated demand of the miners that Joshua Tree National Monument be opened to mining and prospecting. This victory for the conservationists occurred in a two and one-half hour hearing before the San Bernardino County Board of Supervisors.

Dr. J. P. Buwalda, professor geology at Cal Tech, John Rogers, who is writing his doctor's thesis on the geology of Joshua at Cal Tech; Dr. John Goodman, biologist of Redlands University; Clinton Schoenberger, biologist of Valley College, and Dr. Edmund Jaeger, eminent student of the American deserts, all testified along with members of the above societies.

The defenders of the Monument testified that this 500,000-acre park has been set aside for all time as the only high desert wilderness for the people of the United States. Nearly 250,000 people are attracted here annually by its esthetic and recreational values.

Also, they pointed out that the Joshua area was prospected and mined out before its creation in 1936. Since World War II virtually the only activity on its mining claims has been the salvaging of the old machinery.

The U. S. Bureau of Mines, the U. S. Geological Survey and the Atomic Energy Commission have corroborated the findings of previous investigations — showing conclusively that there is practically no commercial minerals within the Monument.

It is interesting to note that the total value of all ores produced within the Monument before the mines were depleted was less than \$500,000. Within the original boundaries of the Monument there were some mineral claims of value, but in 1950 this mineralized area — 289,000 acres — was deleted from the Monument.

A report from the U. S. Department of Interior states: "The possibility of commercial production of base metals, strategic minerals, or important quantities of non-metallic minerals within the Monument is remote."

NORMAN H. MELLER, M.D.

DESERT MAGAZINE

Here and There on the Desert...

ARIZONA

Well Known Guide Passes . . .

GRAND CANYON—W. M. "Bud" Clawson, great grandson of Brigham Young, who was a guide for many years in the Grand Canyon, and became known as "Rainbow Bud," died in Reno, Nevada, after a long illness. Clawson was born in Salt Lake City in 1896. He later moved to California. He achieved an outstanding record as a bronc rider and was a rancher until the time of his illness.—*Coconino Sun*

• • •

Indians Express Distrust . . .

SAN CARLOS—When the federal government eases itself out of the picture, Arizona is ready and able to assume responsibility of the welfare of its Indian citizens, assured Governor Howard Pyle when he spoke to more than 350 tribesmen and guests at an Intertribal Council meeting. U. S. Indian Commissioner Glenn Emmons, also assured them that it will be a long time before there will be a termination of services to the Southwestern Indian tribes. Despite these statements, Indian leaders were skeptical. Tribal Judge Nelson Jose, of Sacaton, charged the state is both unwilling and unable to take care of its more than 70,000 Indian residents, and asked how Arizona expected to dig up the \$20,000,000 a year the federal government now spends on Indians in the state. Other Indian leaders expressed similar distrust of the Indians' future as painted by Governor Pyle and Glenn Emmons.—*Yuma Morning Sun*

• • •

Students Scale Mountain . . .

PHOENIX — The rugged Lizard Head peak in the San Miguel Mountains of Southern Colorado, has been scaled only five times in its entire history. Two young Phoenixians, Ralph Pateman and Charlie Scarborough, both college students, have become the sixth party to climb the steep 13,500 foot peak. Records reveal the cliff was not conquered until 1924. Pateman, a young adventurer whose feats include bull fighting, was told by natives in the area that one man was killed and several injured in a tragedy on the peak in 1950. The steep slope is extremely difficult to climb because of loose rocks that make certain footing almost impossible. Freezing wind and rocks cold enough to numb their hands slowed them in making the climb. The summit of the mountain consists of about a foot-square area of loose rock, the boys said.—*Phoenix Gazette*

New Survey on Indians . . .

WINSLOW—Three private citizens, interested in the welfare of the Indian, are forming a nonprofit organization to conduct economic surveys on Indian Reservations to speed up their rehabilitation. The organization will be formed by Lawrence F. Lee, former president of the U. S. Chamber of Commerce, David T. Beals, president of the Interstate National Bank of Kansas City, and Dr. Clyde Kluckhohn, of Harvard, author of a recent book on Navajos. They will receive grants from private foundations.

Glenn Emmons, U. S. Commissioner of Indian Affairs, speaking before the Winslow Chamber of Commerce, said that there are three outstanding needs to be met before the government can divest itself of responsibility to the Indian. The government must insure better health protection in Indian homes and communities, education for all Indian children of school age, and wider opportunities for economic progress in and around reservations. —*Phoenix Gazette*

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CLOSING OUT: We are in a hurry to dispose of remaining Indian Artifacts, better bargains than ever, dealers welcome. Daniels Indian Trading Post 16299 Foothill (Highway 66) Fontana, Calif.

MISCELLANEOUS

GHOST TOWN ITEMS: Sun-colored glass, amethyst to royal purple; ghost railroads materials, tickets; limited odd items from camps of the '60s. Write your interest—Box 64-D, Smith, Nevada.

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It Just Won't Work . . .

OKLAHOMA CITY—Lie detectors won't work on Indians. Dr. H. Donahue, state mental health director reports that after making several tests, he finds the graph just runs along without a quiver. He reasons it's because of their very stoic nature. — *Yuma Morning Sun*

Museum Proposed . . .

MESA—A proposal that might result in an archeological museum for Arizona has been made by the historical landmark committee of the Mesa Chamber of Commerce. Frank Midvale, who owns a prehistoric ruin of typical valley culture, has offered to deed land for the museum to the city. It is hoped the University of Arizona or some other institution can be urged to excavate the ruin, which is said to be quite large and dating back to early pithouse through pueblo times, about 1100 to 1200 A.D.—*Phoenix Gazette*

Navajo Students . . .

FLAGSTAFF — Nineteen Navajo Indian students are attending Arizona State College on tuition grants by the Navajo Tribal Council at Window Rock. Don May, education guidance officer for the council, arranged for the grants. Ten of the students are upper classmen and nine are freshmen. —*Phoenix Gazette*

New Canyon Road . . .

GRAND CANYON — Visitors to Grand Canyon National Park entering on Highway 64 from Williams, will find a new, modern highway which will take them directly to the Canyon rim at Mather Point, where a modern parking area has been constructed. —*Coconino Sun*

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PALM DESERT, CALIFORNIA

CALIFORNIA

Ducks Create Hazard . . .

IMPERIAL VALLEY—Ducks may be hard to scare off this year in the rich rice and grain fields of Imperial, San Joaquin and Sacramento Valleys. The supply of flares, rifle grenades and other pyrotechnics used may be in short supply this season, according to the California Farm Federation. The flares and grenades are furnished from outdated supplies of the Department of Defense. The present supply is estimated at 25,000 rifle grenades, which is barely enough to meet the needs of a normal season. Should there be an early flight of sprig, as there was two years ago when nearly a million birds preceded the usual flight, a very bad situation could develop. The lateness of this year's rice crop adds to the normal hazard. Farmers using pyrotechnics this year are urged to make as efficient and economical use as possible of the available materials.—*Holtville Tribune*

Woman Saved by Rain . . .

BLYTHE—The miracle of rain on the desert is credited for saving the life of Mrs. Mattilyn Carson, 50, of Phoenix, who had been lost in the Wiley Well area for almost two days. Mrs. Carson had accompanied her son, Allen, 23, and daughter Becky, 13, on a rock hunting expedition when their car became stuck in the sand. Her children left on foot for Blythe to get a tow car, and after many hours went by she became alarmed and left the car to hunt for them. She became lost and walked for an estimated 13½ miles. In the meantime, when Allen and his sister returned to the car and found their mother gone, the alarm was sounded. She was found by Deputy Sheriff Wayne Barrett of the sheriff's substation at Blythe and her son, who were searching the desert trails in a Jeep. In a critical condition due to dehydration, Mrs. Carson had water injected under her skin to speed up her recovery. She said she was able to scoop up small quantities of muddy water during the storm, which hospital authorities said no doubt saved her life.—*Palo Verde Times*

Hesperia's Drilling Successful . . .

HESPERIA — The Omart Investment Company's Hesperia water drilling efforts have finally paid off. A 610 foot well in the center of section 8 pumped 1000 gallons per minute. A small motor was used during the test and the full capacity is still unknown. There was only a 10 foot draw-down. Casing was 14 inches, and the hole gravel packed 24 inches.—*Victor Press*

Twentynine Palms Visitors . . .

TWENTYNINE PALMS—Proof of increased interest in Twentynine Palms and the improvements of roads and camping facilities in Joshua Tree National Monument, is seen by the travel report for the month of August, released by Superintendent Sam King. An increase of 223 percent over August, 1953, and a decrease of 11 percent from July, 1954 is reported. During last month, 14,443 visitors and 4057 cars entered Joshua Tree National Monument, bringing the total for the calendar year to date to 181,451 visitors and 50,777 motor vehicles. There were 319 persons in the camp grounds in August and 16,568 campers during the first eight months. —*The Desert Trail*

State's No. 1 Entry Spot . . .

BARSTOW — Yermo and Daggett combined to make Mojave Desert the state's No. 1 entry spot for autos during August. Yermo had 197,440 passengers and over 67,000 autos pass through its portals. Daggett, not quite as lively, viewed nearly 100,000 passengers and 30,000 automobiles. A. P. Messenger, chief of the Bureau of Plant Quarantine, noted some 1,342,651 passengers were checked through California inspection station in 1953. —*Barstow Printer Review*

Create Mountain Trails Group . . .

HEMET—A permanent trails system in the San Jacinto Mountain area was a step closer today as a result of the creation of the Mountain Wilderness and Trails Association by Riverside County riding and outdoor clubs recently. The group organized to establish a net work of permanent riding and hiking trails leading to back-country wilderness. Support for establishment of a 3000 mile state hiking and riding trail from Oregon to Mexico, held up in Riverside county by right-of-way difficulties, has been promised. The organization's temporary executive committee will be replaced by a permanent board of directors to be named later.—*Hemet News*

Salton Sea Is Still Rising . . .

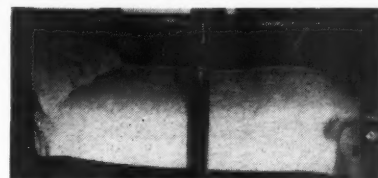
EL CENTRO — The Salton Sea continues to rise. According to the Imperial Valley Irrigation District the sea has recently reached 234.80 feet. It is 1.20 feet higher than a year ago and .36 foot higher than it was six months before the last measurements were taken. Rise of the Salton Sea is due to the inflow of Colorado River water taken into the Imperial Valley via the All-American Canal from Yuma, where it is used for irrigation. —*Phoenix Gazette*



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Cemetery to be Restored . . .

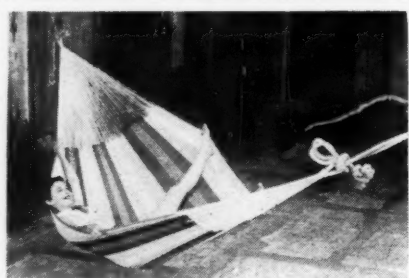
FALLON — The Stillwater Indian Reservation Council is taking steps to restore the cemetery which was so disastrously damaged during the July and August earthquakes. The Indians at the reservation have taken pride in the upkeep of the cemetery, which was originated in 1914 as a permanent project, after considerable persistence on the part of Mary Brown, one of the first Baptist missionaries to be sent to the reservation. The officers of the Indian Council are soliciting aid from the proper authorities for this purpose.

It is recalled that the remains of the last of Paiute Chiefs, Captain Breckenridge, were buried somewhere in the vicinity of the cemetery. Interred with him were the treaty papers signed by him and the United States Government. There has always been the hope that someday these historical papers might

be found. It may be that the whereabouts will be discovered in the rehabilitation of the cemetery.—*Fallon Standard*

Watch for Rattlers . . .

AUSTIN—Rattlesnakes seem to be appearing in places that ordinarily are not their regular haunts. The experts say they are seldom seen above 6000 feet, but Nevadans living above that altitude usually see a few every summer. The rattlesnake is not aggressive and almost never strike without warning. Look where you walk, for more than 50 percent of snake bites occur when someone steps on a snake or too close to one. Rattlers have no body heat and are always searching for a warm place to coil up. When you see one wound up nice and tight, you have the advantage, but when you see one loosely coiled—stop. He is liable to strike—and they often travel in pairs. A cautious, watchful person is seldom bitten. Rattlers often curl up on the black top of the highways because of the warmth. One tourist, who had stopped on the highway to change drivers, stepped out of the car and felt something strike her ankle. Her husband had had first aid. He cut the wound and applied suction and a tourniquet, and rushed her to the Austin hospital where her condition was said to be good.—*Reese River Reveille*



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Would Preserve Historic Hall . . .

VIRGINIA CITY—The campaign to preserve the historic Masonic Hall at Virginia City is gaining nationwide support from Masons and non-Masons alike, who would like to see the Virginia City Masonic Hall, preserved and restored as a shrine of the Old West and a Nevada State Information head-

quarters for visiting Masons. A prior proposal to strip the historic building of its artifacts and install them in the hall in Reno has been met with growing opposition. Masons who are supporting the campaign have expressed the opinion that "this is a project that will appeal to Masons throughout the world and one which will supply the thousands of Lodge members who annually visit Nevada, a focal point of fellowship at the West's most historic Masonic Hall." — *Territorial Enterprise*

More Funds Needed . . .

FALLON — The Ichthyosaur Park fund has now reached the sum of \$1060 according to Margaret Wheat, local archeology authority. The first thousand dollars has been assured, but more money will be needed for the project, as a caretaker must be hired to prevent vandalism, and for other expenses. The 50 foot Ichthyosaur is located in the Ione district near Berlin. Dr. Charles Camp, University of California paleontologist, who unearthed the remains, is at the camp to talk to visitors. Many groups of local people continue to visit the locality which is bringing fame to this valley. —*Fallon Standard*

Experiment in Cloud Seeding . . .

WASHINGTON — Relief for the drouth emergency area in the Humboldt River Basin by cloud seeding is being urged by Sen. George W. Malone, with the aid of several government departments. He is urging this measure especially during the winter months when an effort would be made to increase snow packs, which in the past years have been far from sufficient.

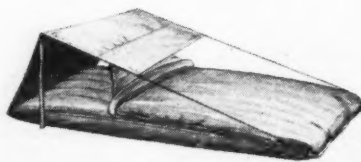
Senator Malone points out that fees collected in Nevada by the Bureau of Land Management, under the Taylor Grazing Act, are at the rate of 12 cents per animal unit month, of which two cents is allocated back to range improvement and ten cents goes to the United States Treasury. He argued that at least two cents could be devoted to the cloud seeding program. Considering that the 10 cents for the Treasury can't be collected so long as drouths keep cattle off the range, the only way to collect that money in the future is to invest the Treasury's share now in an effort to provide water and insure future range population on which fees can be collected. Discussion at the moment is centering around the question of whether basinwide cloud seeding would be successful. Past experiments in cloud seeding for ranges have been conducted under extreme summer drouth conditions, with no program extending through the winter for the purpose of increasing snow packs.—*Reese River Reveille*

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NEW MEXICO

Aldo Leopold Honored . . .

GLENWOOD — In honor of the man most responsible for the preservation of primitive Gila Wilderness, Senator Anderson of New Mexico, erected a plaque and praised the conservation work of Aldo Leopold in a dedication held beside U. S. Highway 260, about ten miles south of Glenwood, September 11. Senator Anderson told how Leopold, a figure in state and national conservation circles, fought to keep the land the way it was originally, and told of the laws that Leopold helped to create so that the Gila tract would not be touched by man-made construction. The area is said to contain nearly every type of wildlife found on the North American continent. Senator Anderson said, "We can look at the great expanse of the Gila Wilderness and know it is one of the few such areas in the United States virtually untouched by human hands, and honestly say this might not have been except for the initiative of Aldo Leopold." Leopold died in 1948 from a heart attack while fighting a neighbor's grass fire.—*New Mexican*

Reservoir Gates Closed . . .

ELEPHANT BUTTE—Gates of the Elephant Butte Reservoir are closed and probably will not be reopened this year. Storage to date is 28,475 acre feet—up from the all time record low of 9800 feet before the heavy rains came. Storage of 50,000 acre feet is expected. Editor Paul Toole of the *Hot Springs Herald* said the heavy inflow had saved the lake's fish and that fishing this week has been excellent. Residents are breathing a sigh of relief after the fear of an empty lake and consequent loss of the tourist town's fish attraction. Unless there is additional heavy water flows from more storms, however, 1954 will be the 12th consecutive year in which inflow has been below the average of the 50 year 1895-1944 period.—*New Mexican*

Mescaleros Seek Land . . .

FORT STANTON — Mescalero Apaches are seeking the return of their ancestral holdings which formerly were owned by the Fort Stanton Marine Hospital. Wendel Chino, president of the Mescalero Indian Tribe business committee, representing the tribe, declares that the land in question is their aboriginal homeland and feel they are still owners and want the land, not a financial settlement. They will use the land, and Indian families would benefit

more from it than one or more ranchers, Chino states. Representatives of other Indian tribes in New Mexico will give historical testimony in support of the Mescalero claim. — *Alamogordo News*

Black Bear at the Sands . . .

WHITE SANDS NATIONAL MONUMENT—Imagine the surprise of Johnwill Faris, superintendent of the National Monument, when he saw a black bear near the headquarters building. He has often been heard to say "when I see a bear on the sands, I'll resign." But now that he's seen it he's not ready to quit. He grinned and commented, "That's an old story. Many people come excitedly to tell us that a bear is nearby, but it usually turns out to be a dog or an otter." This was a real bear, though, Faris declares. He was about two and one-half or three feet high, was heavy and his fur gleamed. "We're surprised to say the least," he said.—*Alamogordo News*

UTAH

Echo Park May Be Saved . . .

WASHINGTON — Plans for the immediate construction of Echo Park Dam in Dinosaur National Monument are being delayed. In an article in the Post, by staff writer, Nello Cassai, water officials are said to have conceded that organized opposition of naturalists—led by the Izaak Walton League of America—has forced them to revise their thinking on the controversial dam in northwest Colorado. The article also said that continued opposition by naturalists and conservationists to the Echo Park feature may again doom the multi-purpose reclamation development.

In an editorial in the Post, it was stated that there is a great deal of misconception about the real opposition to the Storage project. Two forces opposing the storage project are more powerful than the group which is

merely fighting to preserve Echo Park and Dinosaur National Monument. The two were identified as a group of eastern and middle western congressmen and senators who are opposed to all reclamation, and California which does not intend to let upper basin states use any water which otherwise might go to California. Without Echo Park Dam the storage project will be difficult to justify, the Post said. — *The Vernal Express*



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Testing Project Near Zion . . .

VIRGIN — Site for a \$2,000,000 testing project to be undertaken by the Wright Air Development Center of Dayton, Ohio, has been chosen near the entrance of Zion National Park. The experiment station will be to study and develop methods of ejecting pilots from jet craft at supersonic speeds. A mile-long track will be erected with a rocket engine to push the carriage, similar to the cockpit of a plane, to the edge of the mesa and catapult the simulated cockpit into the air, where ejection seat tests will be made. The carriage and the seat will be caught

by a parachute and gently eased to the ground, approximately 1500 feet below. At the beginning of the experiment, dummies will be used until it is proven the descent will not harm a human being.—*Caliente Herald*

• • •

Increase in Monument Visitors . . .

VERNAL — Dinosaur National Monument had more than 55,000 visitors in the first eight months of 1954, an increase of 196 percent over the same period in 1953. A breakdown of visitors to different sections of the Monument, shows that 50,000 visited the dinosaur fossil quarry and Split

Mountain Gorge; 3300 visited Harpers Corner, Echo Park and other portions of the canyon section by automobile, 889 made trips through the canyons by river boat and 884 saw the Monument from the air either by chartered flights of the Basin Flying Service or the special flights by Frontier Airlines during the dedication of the new airport administration building.—*Vernal Express*

• • •

New Freedom for Indians . . .

WASHINGTON—For the first time in history, Congress has moved to end, rather than extend, federal control over the American Indian. Bills passed by Congress during the past session will end federal supervision in two years over 60 Western Oregon tribes, four Utah Paiute bands and the Alabama and Coosvada Indians of Texas. The Oregon Klamaths will get freedom in four years. The Wisconsin Menominees in five years and the Northern Utes of the Uintah-Ouray reservation in seven years. Other legislation enacted will be to improve the government's health program from the Interior Department to the Department of Health, Education and Welfare; give Indians the right to own and sell property; possess fire arms and liquor; and provide more efficient law enforcement on reservations. — *New Mexican*

TRUE OR FALSE

Here is another set of booby-traps set by *Desert Magazine's* quiz editor for folks who think they know a lot about the Great American Desert. But they really are not booby-traps. Every one of them is a legitimate question with a yes or no answer. You'll not get all of them correct, but you'll learn some new desert history, geography, botany, mineralogy and lore of the desert country. Twelve to 14 is fair, 15 to 17 good, 18 or over excellent. The answers are on page 38.

- 1—A rattlesnake adds a new button to its rattle every year. True..... False.....
- 2—Navajo Indians grow cotton for weaving rugs. True..... False.....
- 3—Desert Indians in Southern California once used a crude throwing stick or boomerang to capture rabbits. True..... False.....
- 4—The state flower of Arizona is the Saguaro cactus. True..... False.....
- 5—Elephant Butte dam is located in Arizona. True..... False.....
- 6—It is necessary to have a license from the U. S. Indian Bureau to open a trading post on an Indian reservation. True..... False.....
- 7—The desert kangaroo rat travels on all four feet. True..... False.....
- 8—The book, *Ben Hur*, was written by Lew Wallace while governor of New Mexico. True..... False.....
- 9—The Great White Throne is located in Bryce Canyon National Park. True..... False.....
- 10—The desert coyote will not harm lizards or rodents. True..... False.....
- 11—The soldiers of Capt. Juan Bautista de Anza on their historic trek from Tubac to Monterey to establish the first white colony in California wore armor-plate of metal. True..... False.....
- 12—The Oatman massacre in 1851 occurred at Oatman, Arizona. True..... False.....
- 13—Bloodstone is a solid red mineral. True..... False.....
- 14—The Great Salt Lake has a higher salt content than ocean water. True..... False.....
- 15—Rainbow Natural Bridge is in Utah. True..... False.....
- 16—Scotty's Castle in Death Valley is owned by the National Park Service. True..... False.....
- 17—The four states which meet at the Four Corners are Utah, Colorado, Arizona and New Mexico. True..... False.....
- 18—Uranium is never obtained by placer mining operations. True..... False.....
- 19—Director of the National Park Service is Conrad Wirth. True..... False.....
- 20—All date palm trees in the United States came originally from offshoots imported from Asia and Africa. True..... False.....

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF

The Desert Magazine published monthly at Palm Desert, California, for October 1, 1954.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Desert Press, Inc., Palm Desert, California. Editor, Randall Henderson, Palm Desert, California. Business manager, Bess Stacy, Palm Desert, California.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.) Lena Clements, Clifford W. Henderson, Cyria A. Henderson, Randall Henderson, Evonne Riddell, Nina M. Shumway and Bess Stacy of Palm Desert, Calif.; Martin Moran, Indio, Calif.; Vera L. Henderson, Los Angeles, Calif.; Philip T. Henderson, Pasadena, Calif.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: Bank of America, Indio, California.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

RANDALL HENDERSON, Editor

Sworn to and subscribed before me this 29th day of September, 1954.

LOIS E. ROY

(My commission expires May 18, 1958.)

DESERT MAGAZINE

MINES and MINING

Winnemucca, Nevada . . .

With only a life-savings of \$6000, less than 3 years ago, Vernon Pick, age 50, decided he would like to prospect for uranium. Today he is a multi-millionaire. Recently he sold some of his uranium mines in southeastern Utah for \$9,000,000 cash to the Atlas Corporation headed by Floyd B. Odum. Pick became a uranium prospector after a fire destroyed his motor rewinding shop in Minneapolis in 1951. He bought a pick-up truck and trailer and headed west with his wife, Ruth. At Colorado Springs, Colorado, he bought a handbook on uranium and caught the prospecting fever. With the book in hand, he headed for Utah and was down to his last grubstake nine months later when he struck "the real thing." Floyd Odum of the Atlas Corp. said that the Pick property is "regarded as one of the richest deposits of uranium ore on the Colorado Plateau." Pick still has two producing uranium mines—one in Utah and the other in Colorado. — *Humboldt Star*

Moab, Utah . . .

Two brothers have reported finding uranium ore in the northeast corner of Grand county—a find which might prove to be the largest low grade deposit yet located. The strike is in the bad-lands at the head of West Water Creek, where they have located 162 claims since going into that country in April. C. J. Baumgardner of Las Vegas and his brother George, of Ouray, Colorado, said an old cowman, Billy Brown of Ridgway, Ouray county, Colorado, who ran cattle in that country in 1893 to 1900, told them of the "queer country" in 1937 and they went back five times. Even though geologists told them there couldn't be uranium in that area, they investigated and think they have something. It's a geological oddity they say.—*The Mining Record*

Provo, Utah . . .

Within the borders of Utah County, large quantities of industrial clay and about 50 percent of all used in the state in brick and pottery making can be found. Edmond P. Hyatt, ceramic engineer and instructor in geology told of these clay deposits at a recent monthly session of the Utah County Coordinating Council. He divided the clays into four groups: those found in Manning Canyon, which are special shale clays; Long Trail shale, Fox Hills clay and miscellaneous. — *Salt Lake City Tribune*

Winnemucca, Nevada . . .

In the Kings River district about 75 miles north of Winnemucca, Nevada, an important uranium discovery has been reported on property recently acquired by the Double O Timber & Mining Company of San Francisco. The property is known as the Granite Point Group and is close to the holdings from which six carloads of uranium ore has already been shipped. Strong radioactivity along the whole length of the property is reported and the grade of ore is considerably improved as depth is gained.—*Humboldt Star*

Kanab, Utah . . .

A 50-hole drilling program has been started on Kanab's first Uranium property. The property which is located nine miles east of Kanab has good showings of uranium-bearing ore. Altogether, the Kanab-Uranium Corporation, recently set up by C. W. Parry, has 20,000,000 shares, most of which has been issued, leaving a balance of 5,000,000 shares being offered to the public. The \$50,000 drilling program has been anxiously awaited by this area, and with a local company doing the exploration and development, a big boom in its economy is expected. — *Southern Utah News*

Moab, Utah . . .

A four million dollar sale, possibly the second largest in uranium history, was made by the Old Texas Mining Co., recently, to Chicago interests. The purchasers were represented by Gerald Gidwitz, chairman of Helene Curtis Industries. The property includes 26 out of 30 claims in the Kattlesnake Mountain area, located about four miles northeast of the Charles Steen Mi Vida Mine in San Juan County, Utah. The mining operations, near Moab, Utah, are being conducted by the Mineral Engineering Co. of Grand Junction.—*Vernal Express*

Kanab, Utah . . .

Possibility of growing economic development in Kanab is seen by the arrival of 19 trucks, trailers and equipment of the J. Ray McDermott and Co. Corp., of New Orleans, La., to begin drilling operations on three oil wells north of Kanab. Seven families and a crew of 16 men will begin operations on the three proposed wells that will take from six to eight months to complete. Drilling will be on a 24-hour basis and the land covers approximately 125,000 acres in the Sand Dunes area.—*Southern Utah News*

Salt Lake City, Utah . . .

Two million acres of public domain—formerly withdrawn for power site development—have been opened to mining claim location in Utah. The lands affect the Colorado River drainage basin, and include the tributaries of the Green and San Juan Rivers. This acreage is regarded as some of the hottest for prospecting for uranium. Mining claims filed on top of power site developments were not valid. However, certain dispensations were granted to miners who pursued the cause of validation. Henceforth, in order to obtain a valid mining claim in the withdrawal areas, the miner must relocate, posting the following notice: "Relocated claim, under authority of Federal Register Document dated August 26, 1954, Vol. 19, No. 166 of Federal Register and Utah No. 3 (A-2) (BLM Order)." Those with claims must use this relocation notice. Those seeking new claims must also use the same notice.—*Salt Lake City Tribune*

Montrose, Colorado . . .

One of the largest uranium deals yet concluded, was the sale of the holdings of the J. R. Simplot Mining Co. of Boise, Idaho, to Camoose Mines, Ltd., of Canada. The three operating mines are producing in the multi-million bracket at this time, but figures are not obtainable. This is the only property on the plateau in addition to the Utex Mi Vida, where diesel equipment is used underground, and where trucks are loaded right in the mine. Camoose Mines, Ltd., is an old company with extensive zinc lead properties in the northwest, as well as uranium claims in Grand County. An interesting feature of the big deal, according to reports, is that it was made verbally over the phone by Mr. Simplot, who later turned down an offer from another company for a million dollars greater because he considered his word binding.—*Moab Times-Independent*

Phoenix, Arizona . . .

The University of Arizona will continue in its uranium prospecting methods by testing leaves of plants. The project has been underway for a year and will continue through September 15, 1955. The Atomic Energy Commission provides a grant of \$5200 for the work. Dr. Edwin B. Kurtz of the botany department, who is heading the research, believes that by testing leaves, traces of uranium in the soil can be found much easier than by geiger counter, as geiger counters test only the top four feet of soil, while plant roots go down from 10 to 40 feet and have been known to go as deep as 100 feet.—*Phoenix Gazette*

AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

The world is rapidly becoming an old man's world. According to a study of population by the United Nations one out of every 10 persons living in the world today is 65 years of age or older. The average is even higher in the U. S. By the year 2017, it is estimated that 17% of the world population will live beyond the 65 mark.

We said long ago in these columns that it would only be a matter of a very few

years before every young person had to carry the burden of an old person on his back—but in a different way. The young are now supporting the old by taxes which buy pensions and these pensions allow the oldsters to support themselves, instead of being relegated to an unwanted attic room in a home where they are not wanted.

Pensions, trailers, the automobile and the modern road enable untold thousands of these senior citizens to follow the birds—south in the winter and north in the summer. These people have established the economy of many places in the nation. Some cities have been designated by sociologists as "retirement cities." Two of these cities are St. Petersburg, Florida, where more than 22 persons out of every 100 are past 65 in a population of 97,000 and Pasadena, California, almost 17 percent of the 104,000 population are beyond 65. It is a standard joke locally that the population in Pasadena sits around listening to the hardening of the arteries.

It may be a joke to some people, but it certainly is no joke to the thousands who have retired from something but have failed to retire to anything. Too many are lost souls with no organized activity. We cite an extreme instance of the killing of time on the part of a couple of retired friends of ours who have no program of any kind. They spent the better part of two days giving a detergent bath to all their old phonograph records, many of which they had not played for years and most of which they would never play again. This strikes us as probably the low water mark in wasted time and it seems to us they would have been a lot happier if they had just sat and listened to the playing of every one of those dusty old records for a few days and lived in the memories they called forth.

Now the reason we mention the old age problem now and then, is because we believe that gem cutting and silvercraft are two diversions to which bored oldsters can direct their effort with great satisfaction. Someone has said that you can't set all 20 million old folks in America to weaving baskets, and of course you can't have every one of them working and whittling at a pile of rocks.

But it happens that the United Nations has studied this matter so thoroughly, that a list of the most important towns of less than 10,000 population, which are considered retirement towns, includes the names of many where our subscribers live and we hope to bring a new angle on the gemcutting hobby to some of them. In addition to the big California cities, all of which are retirement towns, the following smaller communities are listed as important American retirement meccas: Atascadero, Banning, Carmel, Claremont, Corning, Covina, Garden Grove, Glendora, Fair Oaks, Hemet, Laguna Beach, Sierra Madre and Del Mar.

"Ah, but rockhounding is too strenuous for us," I hear some subscriber sighing. Yes, I agree with that objection. I think that rockhounding, as it is popularly understood, is too strenuous for most people over 65. I always get a smile when some wise acquaintance in the 40s says he is going to retire at 65 and go fishing. He forgets about the degenerative processes coming up, the arthritis and the circulatory symptoms that will never permit him to wade about in icy water to break his hip on a slippery rock for a few fish. And the climbing of steep

hillsides to haul heavy sacks of rocks is not a safe program for too many elderly people.

However the picture has changed a great deal today for the man or woman who wishes to while away a little time each day in a useful and satisfying pursuit of gem cutting or silvercrafting. No longer does a man need a backyard shop to follow the hobby. Hundreds of people travel all over the country in trailers and have lapidary machinery stored in a small space under the bed so that they can grind rocks wherever they can find an electric outlet. Anyone who has room for a set of golf clubs or a mixmaster in trailer or home has room today for adequate lapidary and jewelcraft layouts.

It is no longer necessary to have a big diamond saw to saw up the big boulders. Slabs of rock can be bought from any one of more than 500 rock dealers. You do not need to spend a lot of money to go after rocks yourself. Buy the slabs by mail at a few cents per square inch. You see what you get; you have no culls or duds; you spend nothing in time, energy or money to go long miles after rocks. Someone else has gathered them for you and you can buy good gem material for less than it would cost you to go after it and with the assurance that you can get what you want when you want it.

The most important consideration for the adoption of the gem cutting hobby by older folks is that of supplementing income. Just about everyone on a pension has the idea in the back of his head that he'd like to have a little activity that would bring in a little money so that he would not have to disturb his nest egg too much.

Let us suppose that you have your trailer parked with a hundred others and you are grinding away at some pretty agates you found on a nearby beach that morning. Neighbors come to watch you and in no time at all they are propositioning you to cut a stone for them which they found and which they treasure. Or they want some earrings made and your wife does some silver work so she makes the earrings for a small fee. Such earrings are more highly prized by that neighbor, who remembers you as she tells other friends in other places about them being handmade by a friend, rather than just being a casual purchase of some machine made bobs from Penney's.

Or perhaps you are anchored to a little home in a small community, and feel that you have no outlet for the surplus items you make and have no room or inclination to keep. If you become skilled and have any originality at all, you should climb into your car and take a trayful of your best work into the city. Visit the gift shops in the big hotels and on the boulevards and show them your wares. They are always anxious to stock a few handcrafted items and they don't have to lay out any money to put in your line. You leave a half dozen pieces with them on consignment. You haven't lost anything or tied up any money. The pieces are better off in a case where they are seen by the buying public than they are in your dark bureau drawers at home. We know several people who have been supporting themselves for years by just such methods—but they do fine work that is in increasing demand.

In conclusion we offer the thought that if you never sell a gem or a piece of jewelry at all, the high satisfaction that will come to you in creating something with your hands and thoughts will be a rich experience. For every man has within his heart an unsatisfied longing to be an artist. If you can satisfy this longing in your retirement years then you have achieved new hope and an escape from loneliness.

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GEMS and MINERALS

UNIVERSITY PLANS CLASSES FOR LAPIDARIES, ROCKHOUNDS

For those interested in semi-precious stone and jewelry making and minerals, adult classes in Jewelry Making, and Front Range Excursions, were planned by the University of Denver with classes beginning Sept. 27. Jewelry Making is a class for amateurs on how to set semi-precious stones in silver, make rings, bracelets, necklaces and more. The teacher is Mrs. Gladys Cameron, member of the Colorado Mineral Society. Front Range Excursions is to be a series of classes and field tours to acquaint beginners with geological and geographical patterns which are characteristic of the evolution and present state of the Rockies.

MINERALS ARE ATTRACTION AT MONTEREY COUNTY FAIR

A display of Monterey County, California minerals, sponsored by the Monterey Bay Mineral Society, proved to be a top attraction at the county fair this summer. Featured were jade, jasper, agate and rhodinite and the display also included uranium from Nevada and Utah, turquoise, gold, variscite, petrified woods, lead, crystals and many more. A special attraction was dozens of beautifully polished cabochons. Displaying at the fair were Wally Bast, Mr. and Mrs. V. L. Fraser, John Betz, Mr. and Mrs. Louis Braun, Dr. and Mrs. A. C. Mitchell, Mr. and Mrs. Art Scattini and Mr. and Mrs. Robert A. Scheffler. Louis Braun presented a cutting and polishing demonstration. Mrs. Louis Braun was chairman of the exhibit and Mrs. Robert Scheffler was co-chairman.

ROCKHOUND ROUNDUP SET BY MONTEBELLO SOCIETY

An invitation to attend its first annual Rockhound Roundup November 6 and 7 has been issued to all rockhounds by the Montebello Mineral and Lapidary Society. It will be held at the Taylor Ranch House, 737 North Montebello Boulevard, Montebello, California.

Officials said they will feature the finest collection of Crestmore Minerals ever shown, as well as many other educational displays by the society's own members. Guest exhibitors will include Mrs. Dorothy Craig, Mrs. Jesse Hardman, Sol Shalevetz, Wray McDaniel, George Masimer, Leland A. Bergen, Louis B. Goss, Mr. and Mrs. Daniel Brock and others.

There will be no admission charge and meals and refreshments will be served.

MINERAL SOCIETY RECEIVES MINING CLAIMS AS GIFT

Ten mining claims near Traverse Creek, El Dorado County, were presented as a gift recently to the El Dorado County Mineral and Gem Society by B. A. (Jack) Stifle of Oakland, California.

They will be known as the Stifle Memorial Park in honor of William L. Stifle, uncle of B. A. Stifle, who located them over 35 years ago. On the claims are 10 known minerals with serpentine predominant.

Featuring work by its own members, the Hollywood Lapidary and Mineral Society, planned its seventh annual show October 9 and 10.

DISPLAY AT LOS ANGELES COUNTY FAIR INTERESTING

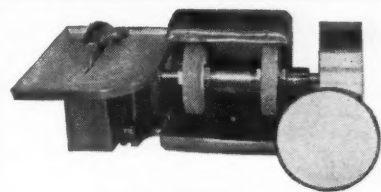
Representing hundreds of hours of work and study, the Los Angeles Mineralogical Society exhibited three cases of minerals at the Los Angeles County Fair. One case of 14 spheres, beautifully cut and polished by Claude Cherry, drew much attention. Other cases contained a rare collection of the Society's president, Dr. P. A. Foster, in which 90 distinct crystal forms carved from pear wood were shown. Beside each wooden form was a named and mounted mineral specimen which displayed, line for line, the matching crystallization in a natural mineral formation.

At the Society's September meeting, W. Scott Lewis, one of the earliest members of the Society, lectured on "Our Restless Earth." The interesting talk was illustrated with beautiful colored slides.

REPORTS 200 DIAMONDS HAVE BEEN FOUND IN U.S.

Shop Notes and News, monthly bulletin of the San Diego Lapidary Society, reported in its September issue that over 200 diamonds have been found in California. Most of them have turned up in placer gold sluice boxes in the gold fields. They have been found in Amador, Butte, El Dorado and Nevada counties. It is believed they were carried down by glaciers from their original location some place in the U.S. or Canada.

A "Travelogue of Nevada Ghost Towns," by Ocie Randall and Walter Riley was to be the program for the September meeting of the Fresno Gem and Mineral Society. Paul Sorrenti, planning the Gem show at the Fresno District Fair, October 1 to 10, asked members to bring large amounts of material so that the best can be selected to be displayed. Maurice G. Reetz, Principal of the Fresno Adult School, tells of the new course of study for the adult class in Lapidary, in the Society's publication, *Chips*. A two-year 200 hour course of study has been adopted. Enrollment in the Fresno Adult School's Lapidary class will be limited to those who have completed less than 200 hours of lapidary instruction in a public school.



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Economic Geology—By H. Ries, A.M., Ph.D.	Price \$7.50
Identification and Qualitative Chemical Analysis of Minerals—By Orsino Smith	Price \$7.50
Handbook for Prospectors and Operators of small mines—By Von Bernewitz	Price \$7.50
The Rock Book—Fenton	Price \$3.75
A Field Guide to Rocks & Minerals—by Frederick H. Pough	Price \$3.00
The Story of Metals—By John W. W. Sullivan	Price \$2.00
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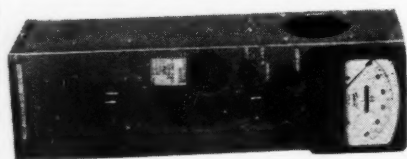
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The San Diego Mineral and Gem Society planned to have as its guest at the general meeting on October 8, Mrs. Erna Clark, a lecturer and writer, who has returned from a tour around the world. Specimens she has found in her travels were to be shown.

At the regular meeting of the Pasadena Lapidary Society held October 6, Dr. Harry B. Derian, sculptor of the famed Sapphire Washington, was scheduled to speak and show the preparation for his carving of the 1997 carat Australian sapphire. Sketches and terra cotta models were to be shown and the year spent in research and the second year spent in carving explained in detail. The field trip to Boron for petrified wood was planned for October 9 and 10. George Lowe is field trip chairman.

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NEBRASKA MINERAL, GEM CLUB ELECTS NEW OFFICERS

Arthur O. Henry was elected president at recent elections of the Nebraska Mineral and Gem Club which now boasts 121 regular members and 23 junior members.

Assisting with official duties will be John E. Hufford, vice-president; and Lloyd C. Fowler, secretary-treasurer.

The club meets on the third Wednesday of each month at 7:30 p.m. in the Print Room of the Joslyn Memorial Museum in Omaha. Interested visitors are invited to attend.

Official publication of the club is *The Nebraska Rockhound's Rear Trunk*.

Coachella Valley's (California) famous quartz crystal, owned by Mr. and Mrs. Omar Kerschner of Indio, was exhibited this summer. The giant crystal, weighing between 500 and 600 pounds is a familiar sight at mineral and gem shows and at the Riverside County Fair and National Date Festival.

Members of the Wichita Gem & Mineral Society found amethyst crystals on their September field trip, at the site of one of the very few granite outcroppings in the state, eight miles south of Yates Center in eastern Kansas. They also visited nearby quartzite sites where red and blue specimens were selected. The Society finished the days fun with a visit to a nearby quarry for crinoid, coral and other specimens that flourished when Kansas was under the sea.

An overnight field trip to the Magdalena area in New Mexico, where the Santa Fe Gem & Mineral Club will look for Pyrite, Azurite, Smithsonite and Calcite crystals was planned for October 9 and 10. At the September meeting, Herbert Grand-Girard talked on "Minerals of the Mid-West." Mr. and Mrs. Grand-Girard are new members of the club. He was formerly president of the Chicago Rocks and Minerals Society.

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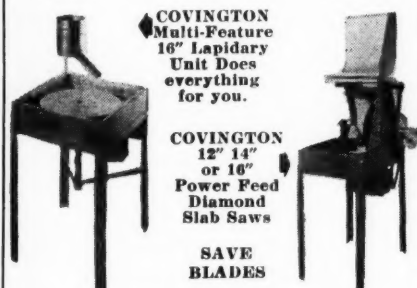
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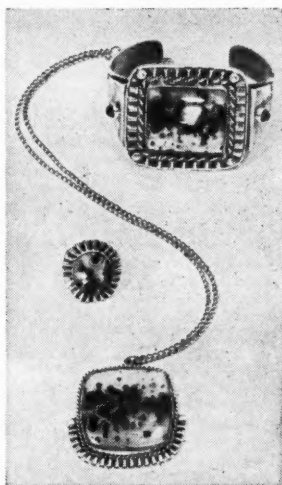
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Two fall field trips were planned at a recent meeting by the Clark County (Nevada) Gem Collectors. On October 31 members planned to travel to Bullhead at Davis Dam, Arizona where they were to search for rocks washed down the Colorado River. On November 27 the collectors plan to visit the Selenite fields at Bonelli Landing in Arizona, about 40 miles from Las Vegas. September meeting was at the cabin of Mr. and Mrs. S. Gene Parks on Mt. Charleston, 32 miles southwest of Las Vegas. Mrs. J. H. Nicolaides was hostess for the group of about 35 members.

"Tin from Bolivia," was the title of a movie shown at a recent meeting of the San Antonio (Texas) Rock and Lapidary Society. Samples of tin ore and smelted material were shown by Mrs. Farquhar as an adjunct to the movie.

With 65 members present, Roy Bible talked on "The Great Pyramid of Gizeh," at the September meeting of the Cheyenne (Wyoming) Mineral and Gem Society. His talk was illustrated with a chart showing a cross section of the great pyramid, its rooms and passages. He described the pyramid as the "most gigantic lapidary project of the ages."

Ogden D. Scoville, mining engineer, was to speak on "Collecting in Western Mexico," at the September meeting of the Santa Barbara Mineral and Gem Society. Scoville, who is a member of the society, planned to exhibit several specimens collected in that area.

After a lengthy contest to select a title, the San Francisco Gem and Mineral Society has named its monthly bulletin "The Mineralog." John Mueller submitted the winning name. Society members planned a field trip to Berkeley Hills for agate and quartz nodules Sept. 26.

Sagenite was to be the object of a September 4-6 search at Owlhead Mountain by the Pasadena Lapidary Society, according to the monthly bulletin. George Lowe was field trip chairman.

In the September issue of The Sphere, monthly bulletin of the Hollywood Lapidary and Mineral Society, Frank Graf reported his lapidary instruction to veterans in the Brentwood Veterans Hospital has proved successful. "Many are turned away because only two can work at my machine," he said. Graf suggested the group sponsor a lapidary class at the hospital as a club project.

San Diego Mineral and Gem Society planned to hold its 17th annual Mineral and Gem Show Saturday and Sunday October 2 and 3. Commercial, special and member exhibits were planned.

Dr. Herbert Adair gave an illustrated lecture on Dinosaur National Monument in Utah at a recent meeting of the Los Angeles Lapidary Society. Dr. Adair showed colored slides he had taken of the monument. Also at the meeting James Ruddy was awarded a life membership in the society.

The San Jacinto-Hemet Rockhounds club received first prize at the Farmers Fair at Hemet, California, August 18-22, the club has announced. Four special awards were presented to Mr. and Mrs. Thomas Harwell of Sunnymead, Mr. and Mrs. Franklin Grouard of Santa Ana, Mr. and Mrs. Webster Parker of Riverside and Mr. Walter Zeiders of Romoland. The members received 31 first awards, 15 second awards and six third awards.

Minerals, gemology and lapidary were topics for a panel discussion by experts at a recent meeting of the Fresno Gem and Mineral Society, Fresno, California. Questions by members were to follow the discussion.

TRUE OR FALSE ANSWERS

Questions are on page 32

- 1—False. A new button is added every time the snake changes its skin which may be two or more times a year.
- 2—False. Navajo rugs are woven with wool.
- 3—True. 4—True.
- 5—False. Elephant Butte dam is in New Mexico.
- 6—True.
- 7—False. The kangaroo rat's normal travel is on its powerful hind legs—hence the name.
- 8—True.
- 9—False. The Great White Throne is in Zion National Park.
- 10—False. Coyotes eat both lizards and rodents.
- 11—False. Some leather armor was worn—no metal.
- 12—False. The Oatman massacre was near the Gila River in southwestern Arizona.
- 13—False. Bloodstone gets its name from small specks of red in greenish chalcedony.
- 14—True. 15—True.
- 16—False. The will of Albert Johnson, Scotty's partner, gave the Castle to the Gospel Foundation of California, the profits to go to religious charities.
- 17—True. 18—True. 19—True.
- 20—True.



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Bidding was high at the annual auction held by the Los Angeles Lapidary Society at the September meeting. In one hour, auctioneer Jack Gaston and several volunteer assistants sold \$97.35 worth of assorted rocks — brought and bought by members. This money was used to purchase refreshments and prizes for the annual picnic held Sunday, September 26, at Tapia Park. The Los Angeles Lapidary Society meetings are held at 8:00 p.m. the first Monday of each month at Van Ness Playground Auditorium, 5720 2nd Avenue, Los Angeles. Visitors are cordially invited, reports Maxine Reams, Corresponding Secretary.

At Escalante, Utah, early in September, approximately 56 enthusiastic explorers of scenic beauty and historical facts convened for a three day excursion into eastern Utah. The expedition was under the sponsorship of the Cedar City Rock Club with members of the Cedar City chapter of the Sons of Utah Pioneers, and the Mineralogical Society of Utah as guests. Randall Lyman of Escalante acted as guide for the trip that took the group to such interesting spots as Harris Wash, Silver Falls Canyon, Wagon Box Mesa, Wolverine Canyon, Deer Creek and Boytons Lookout. The group traveled approximately 125 miles.

Members of the San Jacinto-Hemet Rockhounds were guests of Mr. and Mrs. Thomas Harwell at their September meeting. The Harwells reported collecting excellent honey opal on a trip to Opal mountain, which had been scheduled as a club trip but cancelled due to hot weather. Other members went instead to San Marcos creek to gather agate, petrified wood and fossils. October 8's meeting is scheduled at the home of Miss Martha Wilcox, Hemet.

October meeting of the San Diego Mineral and Gem Society will feature a talk by Mrs. Erna Clark, who has recently completed a world-wide trip. Dorothy Craig spoke at the society's September meeting.

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Members of the East Bay Mineral Society, Oakland, California, planned a three day field excursion September 4, 5 and 6 at the Forest Service Camp Grounds at Jackson Creek, about 18 miles east of Quincy. The group was to search for rose quartz.

Mr. and Mrs. R. J. Laughlin, members of the Cheyenne (Wyoming) Mineral and Gem Society, appeared on Marge O'Brian's "Hobby Corner" television show, Thursday, September 9. They showed jewelry they have designed and made, telling about stones in each piece.

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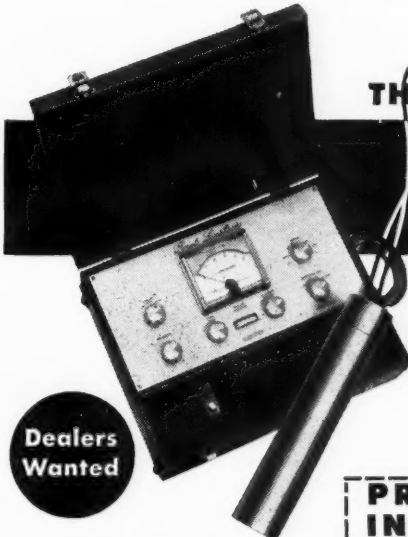
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Members of the Indiana Geology and Gem Society were to be spelunkers for a day when a field trip was to take them to May's Cave, about six miles southwest of Bloomington, Indiana, in mid-September. The cave is believed to mark the course of an ancient underground waterway.

A display of \$500,000 worth of jewelry was shown at the September meeting of the Oklahoma Mineral and Gem Society by Miss Emma Jordon, manager of the House of Winston. Meeting at the home of Mr. and Mrs. H. T. Daniels, society members heard Miss Jordan talk on the Biblical history of gem stones. Plans for the October 17 gem show set by the group were discussed.

Oklahoma Mineral and Gem Society made a Labor Day field trip to McCurtain County in search of green quartz, adularia and tabular quartz crystals. A "rough-it" trip, members camped out and enjoyed only one modern convenience, electric lights rigged by Alvin Markwell, Hack Yount and Chal Snyder. A variety of choice specimens were discovered by those participating.

Members of the Lahontan Gem and Mineral Club of Nevada have planned to enter a club float in the Nevada Day parade in Carson City the last of October. A field trip to Nye Canyon near Yerington, with members meeting at Silver Springs was planned for Sunday, September 26.

At the Forest Dale Club House, the Watch Gem Society of Salt Lake, met to see the colored slide collection of W. T. Rogers, showing the Death Valley and Redwood Area. A field trip was also planned for September 26 at Woodlawn, where Moss Agate was to be the object of the search along the Provo River.

A lecture on diamonds by Mrs. Gladys Babson Hannaford, representing N. W. Ayer & Son of New York City, was presented to the Wichita Gem and Mineral Society, in the Science Building of the University of Wichita on September 26. Mrs. Hannaford also showed slides of the diamond industry, from mine to finished gem. The Barite Rose quarry, selenite crystal location at Brookville, and Rock City will be the field trip for October.

Dr. Theodore Just, chief curator, Department of Botany, Chicago Natural History Museum, was scheduled to address the Chicago Rocks and Minerals Society at their first meeting of the season on September 11. His illustrated lecture was to be "Cycads Living and Fossil."

Boron Dry Lake and Castle Buttes were to be the locations of a September field trip by Delvers Gem and Mineral Society, Bellflower, California. Petrified wood, palm and agate are found in that locality.

Willard Perkin, who has collected minerals for many years, and has traded extensively with European collectors, was scheduled to speak to the Long Beach Mineral Society, October 13. Colored slides and the history of minerals from old time locations were to be shown and explained.

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Graded 400	1.09	.73	.57	.48
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5 for 1.00; 25 for 4.10
3 for 1.00; 25 for 6.45
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The San Francisco Gem and Mineral Society members spent a great deal of time in the planning of the Second Annual Gem and Mineral Fair scheduled at the Scottish Rite Auditorium, in San Francisco, October 16-17. Admission was to be free, with a snack bar, prizes and grab bags. The field trip for October is scheduled at Jim-Bob Mine, Saturday and Sunday, October 23-24, with members panning for gold near Coulterville, 120 miles east of San Francisco in the historic Mother Lode area. Gold pans, shovels, and bottles were to be supplied.

Discussion of a worthwhile site for an October field trip occupied most of the business session of the Explorers-Rockhounds Club of Alamogordo, New Mexico, September 21. S/Sgt. Steve Strauss, club president, who has been stationed in Iceland, showed colored films, some of which were taken at midnight and as late as 2 a.m. during the season when Iceland has sunshine round-the-clock. Phil Stevenson brought polished agate for display and reported on a place some distance from Albuquerque where both agate and petrified woods might be found.

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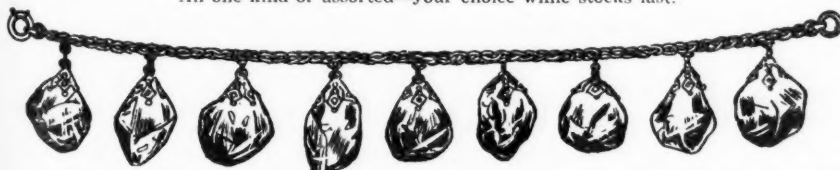
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1/2" Kit complete with 9 stones—\$3.95
3/4" Kit complete with 9 stones—\$4.85



By RANDALL HENDERSON

LAST APRIL the *Desert Magazine* carried a story about Stephen Riess and his revolutionary theories regarding the origin of water. Riess believes that within the rocky structure of the earth, Nature is constantly at work creating new or primary water—and that if man would tap these sources he would be less dependent on rainfall.

Some of the geologists scoff at the Riess ideas. One of them went so far as to broadcast the assertion that any person who claimed there were sources of water other than the precipitation cycle was more than likely a fraud.

Being neither a geologist nor a chemist, I am not qualified to pass judgment on the merit of Mr. Riess' theories. But this is a question of vital importance to people of the desert, and I want to relate the experience of one of my neighbors in this area because of the bearing it may have on the question.

Owner of 500 acres of land in Anza Valley in the Santa Rosa Mountains overlooking Palm Desert is H. A. Pursche, a farmer of wide experience. He bought the land several years ago because he thought its soil would grow good summer lettuce.

The soil was rich, but he was unable to develop enough water for crops. He spent a small fortune putting down wells—15 of them. But all he got was dribbles of water—enough for a few cows. He consulted geologists, and they gave him little encouragement. Beneath the fertile top soil, they said, was solid granite.

Then Pursche read an article about Stephen Riess and called him in for consultation. Riess spent four days studying the geology of the area and the chemistry of the rocks, then advised that a well near the top of a rocky hill probably would tap the best source of water. When water was struck the well pumped 450 gallons a minute, and later when the hole was sunk to a greater depth the production increased to 600 gallons. And that is a good well in terrain where previous holes had yielded only four or five gallons a minute.

Recently I talked with Riess about his theories as to the origin of water. He is a geo-chemist who came to this country from Germany in 1923. There is no hocus pocus about his method of seeking water. His approach is that of a scientist who is convinced that the elements of the earth are constantly at work under certain conditions manufacturing new water, and that it is within the realm of science to determine what these conditions are and where they are operative.

Anyway, that well on the Pursche ranch in Anza Valley is pumping a fine stream of water, and I am reluctant to believe it was all a matter of luck.

* * *

Inyo County, California, appears to have lost its long fight to prevent the Navy from taking over Saline Valley—879,360 acres of it—as an aerial gunnery range for the Marine Corps.

Thus another large sector of the desert Southwest is to be closed to prospectors, scientists and those who come to the desert for recreation and spiritual strength.

From the standpoint of crop production, Saline Valley has little to recommend it. It is just as arid as the name implies. But it will be a tragedy indeed if the armed forces persist in their policy of closing more and more of these desert lands to civilian use. For as population becomes more crowded humans will have increasing need for the space and the freedom which is found only in the arid lands. It was in the solitude of a desert wilderness that the prophets 2000 years ago gained the spiritual stature that enabled them to found a great and lasting Christian religion.

* * *

The Desert is in a sullen mood today. We cannot see San Jacinto and San Geronimo peaks on the distant horizon. The entire landscape is shrouded in haze—gray dirty mist which obscures the entire rim of the elongated bowl which is Coachella Valley.

We do not have these days often. They occur when a sandstorm somewhere to the east, perhaps as far away as Arizona or New Mexico, whips fine particles of silt aloft and the gulf winds carry them westward until the air currents are slowed down by the mountain barrier which separates the desert from the coastal plain. When the overhead currents of wind lose their velocity the fine particles of silt slowly settle to the earth, just as the calcite content in a flowing stream is deposited when the current is retarded.

Some of my neighbors wonder if this is smog which has drifted through the mountain passes from the Los Angeles metropolitan area 120 miles away. But this isn't smog. During the war I spent a summer on the Sahara Desert where the haze was so dense at times it was difficult for our planes to find the runway—and there wasn't a factory within a thousand miles of our little Sahara oasis. The haze on the Sahara was the result of sandstorms which may have stirred up the sand 600 or 800 miles away. Sometimes it was necessary to climb the planes to 12,000 feet to get above those dust clouds.

Here, the same winds which bring a hazy overcast also bring moist air. Humidity is high—and the atmosphere is oppressive. Those desert dwellers who have nothing to do but think about their personal comfort are ready to give the whole desert back to the Indians.

But the desert's ugly mood generally lasts only a few hours. Then the atmosphere clears until one can almost count the agaves on the side of the mountain 20 miles away. The sun is hot—but the heat is a relaxative that is good for normal human beings. Field crops make phenomenal growth, and in the patio the bougainvillea and other sun-loving domestic shrubs throw out great clusters of blossoms.

All normal people can adapt to desert living—and if they have a bit of poetry in them they learn to love the place.

BOOKS of the SOUTHWEST

MASKED DANCERS OF THE HOPI TRIBESMEN

Who are the Hopi Kachinas? Are they gods or devils? What role do they play in the religious life of the tribesmen? Why the grotesque masks and costumes?

These and a thousand other questions which may be asked by students of tribal life and religion in the Southwest, are answered by Dr. Frederick J. Dockstader of Dartmouth College in his new book *The Kachina and the White Man*.

During the 20 years he has been studying the Kachina Cult of the Hopi mesas, Dr. Dockstader has secured over 300 different Kachina figurines. Since the tribesmen constantly are creating new Kachinas and discarding old ones the author does not regard his own collection as complete.

Contrary to popular concept, the Kachinas are not gods. Neither are they idols. Rather, they fill the role of emissaries between the gods and the people. They convey to the unseen spirits of the Hopi world, the prayers for rain, for favorable weather, for good crops. They reward the good deeds of the tribesmen, and punish transgressors.

During his years at Arizona State Teachers' College where he obtained his Bachelor's and Master's degrees, and where he later was an instructor, Dr. Dockstader was in close contact with the Hopis, and spent much time with them in their pueblo homes.

An artist and craftsman himself, he gained the complete confidence of the Indians, and from his association with them he derived an intimate knowledge of tribal customs and thinking. This background has enabled him to prepare and illustrate a most revealing book on a phase of Hopi life which has been the subject of much misunderstanding.

The book deals especially with the influence of the white man's civilization on the culture of the Hopi Indians, and particularly on the Kachina ceremonies.

Published by the Cranbrook Institute of Science at Bloomfield Hills, Michigan, the 204-page volume contains 12 Kachina plates in full color, five halftone photographs and 89 line illustrations. Also, it includes a chronological listing of Hopi-white man contacts from 1540 to 1850, Hopi glossary, bibliography and index. \$5.00.

HOW MEN MAY SURVIVE IN DESERT TEMPERATURES

Many months before Pearl Harbor, both military and civilian chiefs in Washington began preparations for war — a war which they were afraid might extend to remote corners of the world.

As part of this preparation, the U.S. Office of Scientific Research and Development entered into a contract with the University of Rochester, New York, for an exhaustive study of problems which must be met if American soldiers were called upon to conduct a war on or over the desert of North Africa. There would be problems of food and clothing in high temperatures, of stamina and training — of actual survival in lands of excessive heat and little water.

As part of this program of research, a team of scientific men spent many months with the Patton army in training on the Southern California desert. Other research teams went to the Sahara, the Gobi, and other deserts of the world. No expense was spared in making this the most exhaustive study ever conducted in the broad field of human reaction to heat under adverse conditions.

Out of these studies came a series of monographs carrying summaries of all the data collected, and illustrated with charts which would make the information intelligible even to the lowliest private in the U. S. Army.

More recently the reports covering every phase of the study have been published in book form, *Physiology of Man on the Desert*, by E. F. Adolph and Associates.

The 357-page book, available at present only in paper binding, has been selling for \$7.00. However, *Desert Magazine* has obtained the remaining supply of this limited edition and while they last will offer them to *Desert* readers at \$3.50. Early next year a few of these also will be available in hard cover at \$5.00.

SIGNIFICANCE OF DISCOVERY OF INDIAN FIGURINES GIVEN

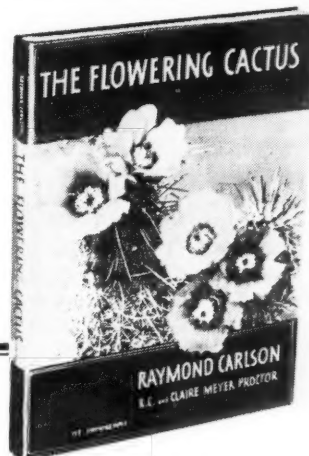
Significance of 11 clay figurines discovered in an ancient Indian cave at Range Creek, Utah is the primary aim of Noel Morss' papers, *Clay Figurines of the American Southwest*.

Because of their elaborate decora-

tion, generally good condition and the fact they come from a single cache, they are considered a significant addition to the corpus of figurines from the northern periphery of the Southwest. Morss presents reasons why he believes the figurines date from the 11th century.

Published by Peabody Museum of American Archeology and Ethnology, Harvard University. 74 pages, 18 colotype figures and 13 illustrations. \$3.50.

Books reviewed on this page are available at Desert Crafts Shop, Palm Desert



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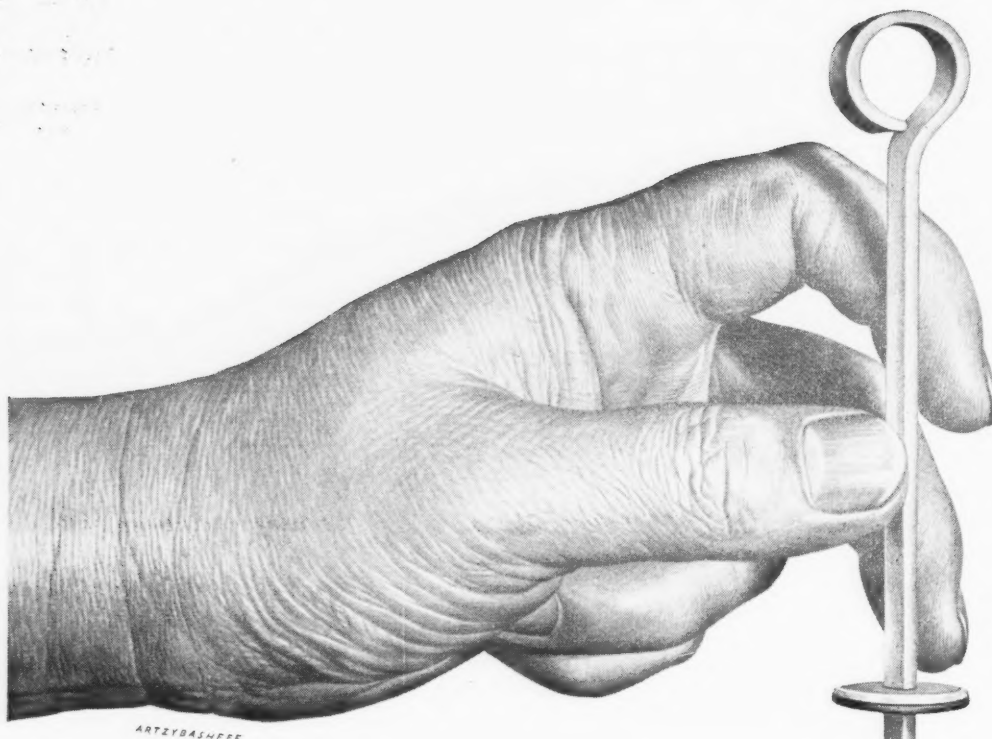
Photographs and technical data by R. C. and Claire Meyer Proctor

137 glorious photographs, 82 in brilliant color, catch the cactus flowers of the Southwest at the height of their astounding beauty. The text by Raymond Carlson, editor of *Arizona Highways*, describes all the main species of cactus, the best time of year to see them, the areas most easily accessible to tourist travel, and how to grow and transplant cactus. A detailed map shows just where each species is to be found in Texas, New Mexico, Arizona, Colorado, Nevada and California.

There is a special section on the best way in which to photograph flowering cactus which deals with all the problems faced by the amateur, and there are detailed line drawings by George Avey to assist in identification. 9 x 11½ inches. \$7.50

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